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ABSTRACT

A research project was designed to identify factors related to the success or failure of East Carolina University School of Nursing graduates on examinations required for licensure as registered nurses. The data base contained information from the classes of 1979-82 (n=392). It includes scores on the State Board Test Pool Examination (for 1979-1981 graduates) or the National Council Licensure Examination (1982 graduates), demographic variables, loans received, Scholastic Aptitude Test scores, selected grade point averages, nursing and cognate course grades, and National League for Nursing Achievement Test scores. Data are presented, supported by 56 tables, for the relationship of each variable with the licensure examination scores. (BW)

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IDENTIFICATION OF VARIABLES WHICH AFFECT
STUDENT PERFORMANCE ON EXAMINATIONS FOR
LICENSURE AS A REGISTERED NURSE

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INTRODUCTION

A research project to identify factors related to the success or failure of East Carolina University School of Nursing graduates on examinations required for licensure as registered nurses is described in this report. The project began in the summer of 1981. A review of the literature to determine variables which had been useful in predicting performance on licensing examinations and initial data collection efforts resulted in the Graduate Data Sheet in Appendix A. A data base containing data from the classes of 1979-1982 has been developed and computer programs to provide descriptive statistics and correlation coefficients as needed have been written.

The data base contains information for 392 generic* and transfer** students. The State Board Test Pool Examination (SBTPE) was administered to the 1979, 1980 and 1981 graduates and consisted of five separate sections and scores. The National Council Licensure Examination (NCLEX), the new licensing examination, was administered to the 1982 graduates and consists of one comprehensive/integrated test and one score. Other variables which were examined in this descriptive study included demographic variables, loans received, Scholastic Aptitude Test (SAT) scores, selected grade point averages (GPA's), nursing and cognate course grades, selected grade averages, and National League for Nursing (NLN) Achievement Test scores. Information on all factors was obtained by reviewing the student's permanent file and also by questionnaire. To present the findings of this study, the student population was divided into the following six groups: generic students, transfer students, all students, a total license exam group composed of students who took the SBTPE and students who took the NCLEX, a group composed

*generic student - one who enrolls at ECU as a freshman and who has not transferred from any other college.

**transfer student - one who enrolls at ECU after having been a student at another college and receives transfer credit for previous college work.

of only students who took the SBTPE, and a group composed of only students who took the NCLEX. The latter three groups were further subdivided into groups of those who passed and of those who failed. Although there were 392 graduates included in this study, licensing exam scores were available on only 372 graduates. The other twenty students took their licensing exams out of state and scores were unavailable.

FINDINGS

Demographic Variables

Demographic variables included in this study were: second degree status, sex, age at entry, number of semesters taken to complete the program, reasons for length of matriculation, externship experience and Sigma Theta Tau membership. These are depicted in Tables 1-9.

TABLE 1: PERCENTAGES INDICATING SECOND DEGREE STATUS, SEX, AND AGE AT ENTRY FOR ALL STUDENTS AND BY GENERIC OR TRANSFER CLASSIFICATION

Demographic Factors	Generic n=288	Transfer n=104	All Students n=392
2nd Degree status	0.3% (n=1)	6.7% (n=7)	2.0% (n=8)
Sex: Male	2.1% (n=6)	2.9% (n=3)	2.3% (n=9)
Female	97.9% (n=282)	97.1% (n=101)	97.7% (n=383)
Age at Entry in years			
Mean	18.1	21.3	19.0
Range	17-27	16-42	16-42

Eight students in the group had second degree status and as Table 1 shows, seven of these eight were transfer students. Female students far outnumbered male students in the total group and in the generic and transfer groups with the percentage of males being less than three percent in each group. The mean age at entry for the total group was 19.0 years with the mean age at entry being lower for the generic group (18.1 years) and greater for the transfer group (21.3 years). Student age at entry ranged from 16 to 42 years with the generic group having a range of ten years and the transfer group having a range of twenty-six years.

TABLE 2: A COMPARISON OF SBTPE AND NCLEX BY SECOND DEGREE STATUS,
SEX, AND AGE AT ENTRY BY PASS-FAIL STATUS

Demographic Factors	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=310	Fail n=62	Pass n=230	Fail n=57	Pass n=80	Fail n=5
2nd Degree Status	1.9%	0.0%	1.7%	0.0%	2.5%	0.0%
Age at Entry in Years						
Mean	19.1	18.3	19.1	19.3	19.0	18.0
Range	17-42	17-20	17-42	17-20	17-35	18

All six students with second degree status passed the license exam which they took. The mean age at entry of students who passed either licensing exam was greater than the mean age at entry of students who failed either licensing exam. The range of ages at entry of students who failed either license exam was 17-20 years. All students who were twenty-one years of age or older at entry passed the license exam they took.

TABLE 3: A COMPARISON OF SBTPE AND NCLEX BY SEX AND PASS-FAIL STATUS

Sex	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=310	Fail n=62	Pass n=230	Fail n=57	Pass n=80	Fail n=5
Male	2.9%	0.0%	3.9%	0.0%	0.0%	0%
Female	97.1%	100%	96.1%	100%	100%	100%

As can be seen from Table 3, only females failed the licensing examinations. All males taking the SBTPE passed.

TABLE 4: COMPARISON OF GENERIC AND TRANSFER STUDENTS BY MEAN NUMBER OF SEMESTERS TAKEN TO COMPLETE PROGRAM AND CONTRIBUTING FACTORS FOR LENGTH OF MATRICULATION

Variable	Generic n=288	Transfer n=104	All Students n=392
Mean No. of semesters to complete program	8.7	6.9	8.2
Reasons for length of matriculation			
expected time frame	66.7% (n=192)	88.5% (n=92)	72.0% (n=284)
academic problems	19.4% (n=56)	5.8% (n=6)	15.8% (n=62)
change major or declared late	10.1% (n=29)	2.9% (n=3)	8.2% (n=32)
medical	0.3% (n=1)	0.0% (n=0)	0.3% (n=1)
finances	0.7% (n=2)	1.0% (n=1)	0.8% (n=3)
family problems	0.7% (n=2)	0.0% (n=0)	0.5% (n=2)
unknown	2.1% (n=6)	1.9% (n=2)	2.0% (n=8)

The mean number of semesters taken to complete the requirements for the B.S.N. degree for all students was 8.2 semesters. As expected, transfer students took fewer semesters to complete the program of study than generic students.

Two hundred and eighty-four students (72.0%) graduated within the expected time frame of eight semesters for generic students and six to seven semesters for transfer students. Table 3 shows that most transfer students (88.5%) completed the program of study within the expected time frame. Of all students, sixty-two (15.8%) took longer than expected to complete their program of study due to academic problems. Academic problems included: (1) delays in gaining admission to clinical nursing courses due to a deficiency in meeting the science requirements or the student had an overall grade point average which was unacceptable for admission, and/or (2) nursing course grades of 'D' or 'F' which required that the course be repeated. It can also be seen from Table 4 that a greater percentage of generic students had academic problems than did transfer students.

Other reasons that students took longer to complete their program of study included change of major or declared major late, medical, finances, family problems, or unknown. Thirty-two students (8.2%) in the total group took longer to complete the program because they changed their major or declared nursing as their major after completing several semesters on campus in another program. Generic students changed their major or declared a late major more frequently than the transfer students. Medical problems, financial difficulties, family problems and unknown reasons were cited less frequently as reasons for longer matriculation. However, generic students took longer to complete the program of study for medical, financial, family problems and unknown reasons than transfer students.

TABLE 5: MEAN NUMBER OF SEMESTERS TAKEN TO COMPLETE PROGRAM AND CONTRIBUTING FACTORS FOR LENGTH OF MATRICULATION FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP, AND NCLEX GROUP AND BY PASS-FAIL STATUS

Variable	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=310	Fail n=62	Pass n=230	Fail n=57	Pass n=80	Fail n=5
Mean No. of semesters to complete program	8.2	8.5	8.3	8.6	8.1	8.4
Reasons for length of matriculation						
expected time frame	72.9% (n=226)	62.9% (n=39)	73.9% (n=170)	61.4% (n=35)	70.0% (n=56)	80.0% (n=4)
academic problems	13.5% (n=42)	30.6% (n=19)	14.8% (n=34)	31.6% (n=18)	10.0% (n=8)	20.0% (n=1)
change major or declared late	9.7% (n=30)	3.2% (n=2)	6.5% (n=15)	3.5% (n=2)	18.8% (n=15)	0.0% (n=0)
medical	0.3% (n=1)	0.0% (n=0)	0.4% (n=1)	0.0% (n=0)	0.0% (n=0)	0.0% (n=0)
finances	1.0% (n=3)	0.0% (n=0)	1.3% (n=3)	0.0% (n=0)	0.0% (n=0)	0.0% (n=0)
family problems	0.6% (n=2)	0.0% (n=0)	0.9% (n=2)	0.0% (n=0)	0.0% (n=0)	0.0% (n=0)
unknown	1.9% (n=6)	3.2% (n=2)	2.2% (n=5)	3.5% (n=2)	1.3% (n=1)	0.0% (n=0)

The number of semesters taken to complete the requirements for the B.S.N. degree took the total license exam group who passed an average of 8.2 semesters, while the total license exam group who failed took an average of 8.5 semesters. The students who failed either the SBTPE or NCLEX also took longer to complete the program than the students who passed either licensing exam.

Two hundred and twenty-six students (72.9%) of the total license exam group who passed, completed their program of study within the expected time frame. Of all students who failed, thirty-nine (62.9%) completed the program in the expected number of semesters. Of the 205 students in the SBTPE group who completed the program in the expected time frame, only 35 (17.1%) failed the SBTPE. Of the 60 students in the NCLEX group who completed the program in the expected time frame, only 4 (6.7%) failed the NCLEX.

Students who had academic problems while enrolled in the School of Nursing had greater difficulty passing the licensing examinations than other student sub-groups, which is not surprising. In fact, for those students who did not complete the program within the expected time frame, academic problems posed the greatest threat to passing the licensing exams. It must be noted, however, that a higher percentage of students (88.9%) with academic problems passed the NCLEX compared with 65% of students with academic problems who passed the SBTPE. Further studies on the NCLEX are needed since only five students have failed the NCLEX at this point in time.

TABLE 6: EXTERNSHIP EXPERIENCE FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

	Generic n=288	Transfer n=104	All Students n=392
Externship	38.5% (n=111)	40.4% (n=42)	39.0% (n=153)

Table 6 shows that 39.0% of all students participated in an externship experience during the summer between their junior and senior years.

TABLE 7: EXTERNSHIP EXPERIENCE FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=310	Fail n=62	Pass n=220	Fail n=57	Pass n=80	Fail n=5
Externship	40.6% (n=126)	29.0% (n=18)	34.8% (n=80)	28.1% (n=16)	57.5% (n=46)	40.0% (n=2)

Table 7 shows that 40.6% of the total license exam group who passed and 29.0% of the total license exam group who failed participated in an externship experience. Out of the 144 students who participated in an externship experience, 126 (87.5%) passed their licensing examination.

TABLE 8: SIGMA THETA TAU MEMBERSHIP FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

	Generic n=288	Transfer n=104	All Students n=392
$\Sigma\theta T$ Membership	24.3% (n=70)	43.1% (n=43)	28.8% (n=113)

Table 8 shows that 28.8% of the students were members of Sigma Theta Tau, the National Honor Society of Nursing. A greater percentage of transfer students were members of Sigma Theta Tau than generic students.

TABLE 9: SIGMA THETA TAU MEMBERSHIP FOR TOTAL LICENSE GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=310	Fail n=62	Pass n=230	Fail n=57	Pass n=80	Fail n=5
$\Sigma\theta T$ Membership	31.9% (n=99)	6.5% (n=4)	28.7% (n=66)	7.0% (n=4)	41.3% (n=33)	0.0% (n=0)

Table 9 shows that a small percentage of Sigma Theta Tau members failed the SBTPE and no Sigma Theta Tau member failed the NCLEX.

Loans Received

Information concerning financial assistance while enrolled in the School of Nursing was obtained by a voluntary questionnaire which was given to the graduates in December 1980, and the classes of 1981 and 1982. One hundred and forty-nine students responded to the questionnaire (a response rate of 73.8%).

TABLE 10: PERCENTAGE OF LOANS RECEIVED BY ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION (December 1980, 1981 and 1982)

Financial Assistance	Generic n=109	Transfer n=40	All Students n=149
Total Percentage with Loans	56.0% (n=61)	52.5% (n=21)	55.0% (n=82)
Type of Loan			
BEOG	63.9% (n=39)	42.9% (n=9)	58.5% (n=48)
VA	3.3% (n=2)	9.5% (n=2)	4.9% (n=4)
USPHS	0.0% (n=0)	9.5% (n=2)	2.4% (n=2)
N.C.DHR	9.8% (n=6)	4.8% (n=1)	8.5% (n=7)
Other	23.0% (n=14)	33.3% (n=7)	25.6% (n=21)

Of the one hundred and forty-nine students who responded to the questionnaire over fifty percent received some type of loan. For both the generic and transfer groups, the Basic Education Opportunity Grant (BEOG) was the most frequently cited source of financial assistance. Twenty-one (25.6%) of all the respondents were recipients of other types of loans.

TABLE 11: COMPARISON OF LOANS RECEIVED BY TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=128	Fail n=14	Pass n=67	Fail n=11	Pass n=61	Fail n=3
Received Loan	54.7%	57.1%	53.7%	54.5%	55.7%	66.7%
Type of Loan						
BEOG	58.6%	75.0%	52.8%	66.7%	64.7%	100%
VA	4.3%	0.0%	5.6%	0.0%	2.9%	0.0%
USPHS	2.9%	0.0%	2.8%	0.0%	2.9%	0.0%
NCDHR	10.0%	0.0%	16.7%	0.0%	2.9%	0.0%
Other	24.3%	25.0%	22.2%	33.3%	26.5%	0.0%

Of the 149 students who responded to the questionnaire, license examination scores were available on 142 students. Table 11 shows that among the respondents, the BEOG was the most frequently cited source of financial assistance in students who passed and students who failed both the SBTPE and the NCLEX. Students in the group which passed both the SBTPE and NCLEX also received loans from a greater variety of sources than did students in the SBTPE and NCLEX groups which failed.

License Exam Scores

License examination scores were retrieved on all students who had their scores forwarded to the East Carolina University School of Nursing. The following table illustrates the pass and fail percentages for generic students, transfer students, and all students on both the SBTPE and NCLEX. A total license exam group was computed by combining the students who took the SBTPE with the students who took the NCLEX into one group.

TABLE 12: A COMPARISON OF GENERIC AND TRANSFER STUDENTS WHO PASSED OR FAILED THE SBTPE OR NCLEX FOR YEARS 1979-1982

License Exam Group	Generic	Transfer	All Students
SBTPE	n=216	n=71	n=287
pass	78.7% (n=170)	84.5% (n=60)	80.1% (n=230)
fail	21.3% (n=46)	15.5% (n=11)	19.9% (n=57)
NCLEX	n=62	n=23	n=85
pass	91.9% (n=57)	100% (n=23)	94.1% (n=80)
fail	8.1% (n=5)	0.0% (n=0)	5.9% (n=5)
Total License Exam Group	n=278	n=94	n=372
pass	81.7% (n=227)	88.3% (n=83)	83.3% (n=310)
fail	18.3% (n=51)	11.7% (n=11)	16.7% (n=62)

As Table 12 shows, the passing rate of East Carolina University graduates increased when the NCLEX was administered in 1982. The percentage of those who passed the SBTPE was 80.1%, while the percentage of those who passed the NCLEX was 94.1%. Transfer students had a higher passing rate than generic students on both licensing examinations. In fact, no transfer students failed the NCLEX. It is not known at this point in time what factors accounted for the difference in the passing rate. It is known that this increase in passing rate on NCLEX occurred throughout the state. Future studies are planned in this area to investigate the differences.

Table 13 displays the mean, range, and the standard deviations of the scores that students received on the SBTPE and the NCLEX.

TABLE 13: LICENSING EXAMINATION SCORES ON SBTPE AND NCLEX FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION FOR THE YEARS 1979-1982

Variables		Generic	Transfer	All Students
SBTPE	Medical	n=216	n=71	n=287
		Mean 459	499	469
		S.D. 88	92	91
	Surgical	Range 183-656	278-708	183-708
		Mean 465	503	475
		S.D. 88	102	93
	Obstetrics	Range 260-740	247-713	247-740
		Mean 490	521	498
		S.D. 85	101	90
	Children	Range 212-666	251-707	212-707
		Mean 468	508	478
		S.D. 84	88	86
	Psychiatric	Range 232-689	208-700	208-700
		Mean 507	525	512
		S.D. 88	83	87
		Range 219-714	318-724	219-724
NCLEX		n=62	n=23	n=85
		Mean 1986	2078	2011
		S.D. 259	221	251
		Range 1097-2415	1620-2576	1097-2576

As Table 13 shows, the mean scores are higher for the transfer students on both the SBTPE and the NCLEX. For all students, the lowest SBTPE mean score (469) was on the Medical Nursing test. The highest SBTPE mean score (512) was on the Psychiatric Nursing test.

SAT Scores

SAT Verbal and Math scores were gathered from the Registrar's office and from student records. The SAT total was computed by adding the SAT Verbal and SAT Math scores together. SAT's for transfer students were not available from the Registrar's office or from the School of Nursing. The only SAT scores found on transfer students were those few students who had a college transcript in their permanent record.

TABLE 14: MEANS, STANDARD DEVIATIONS AND RANGES OF SAT VERBAL, SAT MATH, AND SAT TOTAL SCORES FOR ALL STUDENTS BY GENERIC OR TRANSFER CLASSIFICATION

Scores	Generic n=279	Transfer n=11	All Students n=290
SAT Verbal			
Mean	435	488	437
S.D.	73	61	73
Range	260-650	360-590	260-650
SAT Math			
Mean	457	476	458
S.D.	73	82	73
Range	300-700	350-600	300-700
SAT Total			
Mean	892	965	895
S.D.	124	123	126
Range	620-1220	710-1130	620-1220

SAT scores were found on only eleven of the 104 transfer students. The mean SAT Verbal, SAT Math, and SAT Total scores were higher in this transfer group than in the generic group, but the small number of transfer students makes interpretation difficult. Minimum scores were also higher in the transfer group than in the generic group. The highest scores were observed in the generic group.

TABLE 15: MEANS, STANDARD DEVIATIONS AND RANGES OF SAT VERBAL, SAT MATH, AND SAT TOTAL SCORES FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass n=229	Fail n=51	Pass n=173	Fail n=46	Pass n=56	Fail n=5
SAT Verbal						
Mean	445	392	447	395	442	368
S.D.	69	72	70	69	67	103
Range	270-630	260-570	270-630	270-570	280-580	260-530
SAT Math						
Mean	460	439	462	442	455	418
S.D.	75	60	79	60	65	61
Range	300-700	300-550	300-700	330-550	340-620	370-520
SAT Total						
Mean	906	832	909	837	897	786
S.D.	123	111	127	106	109	159
Range	620-1220	620-1050	620-1220	620-1050	640-1140	670-1050

In both licensing examination groups, the mean scores on SAT Verbal and Math tests were higher for those who passed than for those who failed.

TABLE 16: RANGE OF SAT VERBAL SCORES FOR TOTAL LICENSE EXAM GROUP
BY PASS-FAIL STATUS

SAT Verbal Score Ranges	Pass		Fail	
	n	%	n	%
250-299	4	1.7	4	7.8
300-349	12	5.3	10	19.6
350-399	38	16.6	12	23.5
400-449	62	27.1	12	23.5
450-499	55	24.0	9	17.7
500-549	41	17.9	3	5.9
550-599	13	5.7	1	2.0
≥ 600	4	1.7	0	0.0
Totals	229	100.0	51	100.0

Table 16 shows that in the group who performed successfully on the licensing examination, 16 students (7%) had a SAT Verbal Score of less than 350 whereas 14 students (27.4%) who failed the examination had scores less than 350. In the group who passed, 100 students (43.7%) had scores between 350 and 449 while 24 students (47%) who failed had scores in the same range. One hundred and thirteen students (49.3%) who passed had scores between 450 and greater than 600 while 13 students (25%) who failed had scores in this range. Only 4 students (7.9%) who failed had a score of 500 or greater.

TABLE 17: RANGES OF SAT MATH SCORES FOR TOTAL LICENSE EXAM GROUP BY PASS-FAIL STATUS

SAT Math Score Ranges	Pass		Fail	
	n	%	n	%
300-349	12	5.3	1	2.0
350-399	30	13.1	15	29.4
400-449	62	27.1	14	27.4
450-499	59	25.7	8	15.7
500-549	34	14.8	11	21.6
550-599	20	8.7	2	3.9
≥ 600	12	5.3	0	0.0
Totals	229	100	51	100

There were no SAT Math scores less than 300. In Table 17, it can be seen that of the group which passed, 12 students (5.3%) had a SAT Math score between 300-349, while only one student (2.0%) who had a score in this range failed the licensing examination. In the pass group, 92 students (40.2%) had a score between 350 and 449 whereas in the fail group, 29 students (56.8%) had similar scores. One hundred and twenty-five students (54.5%) in the pass group had a score of 450 or greater while 21 students (41.2%) in the fail group had a score of 450 or better. Thirteen students (25.5%) in the fail group received a score of 500 or greater on the SAT Math test.

TABLE 18: RANGES OF SAT TOTAL SCORES FOR TOTAL LICENSE EXAM GROUP
BY PASS-FAIL STATUS

SAT Total Score Ranges	Pass		Fail	
	n	%	n	%
600-649	4	1.7	1	2.0
650-699	1	.4	6	11.8
700-749	16	7.0	5	9.8
750-799	25	10.9	7	13.7
800-849	24	10.5	11	21.6
850-899	42	18.3	7	13.7
900-949	42	18.3	4	7.8
950-999	16	7.0	5	9.8
1000-1049	26	11.4	3	5.9
1050-1099	15	6.6	2	3.9
≥ 1100	18	7.9	0	0.0
Totals	229	100.0	51	100.0

Five students (2.1%) in the group which passed received an SAT total score between 600 and 699 while seven students (13.8%) in the group which failed had a similar score. One hundred and seven students (46.7%) in the pass group had a total score between 700 and 899 with 30 students (58.8%) in the fail group having scores in this range. One hundred and seventeen students (51.2%) of those who passed received a total score ranging from 900 to greater than 1100. Fourteen students (27.4%) in the fail group also achieved a total score greater than 900.

Selected Grade Point Averages and Aggregate Course Grade Averages

Cumulative semester grade point averages (GPA's) were coded by using the grade point average of the student's last semester in nursing as the eighth GPA and working backwards. By following this system the researchers were able to code GPA's which were consistent with each student's progression in the School of Nursing. GPA₆ corresponded to the end of the student's junior year in nursing, GPA₄ corresponded to the end of the student's sophomore year in nursing. GPA₂ corresponded to the end of the freshman year while the student's GPA between the fall and spring semesters of his freshman year was GPA₁.

(See Tables 19 and 20)

TABLE 19: MEANS, STANDARD DEVIATIONS AND RANGES ON SELECTED CUMULATIVE SEMESTER GRADE POINT AVERAGES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION (1979-1982)

Grade Point Averages	Generic	Transfer	All Students
GPA ₁	(n=119)	(n=16)	(n=135)
Mean	2.92	3.05	2.93
Range	1.93-4.0	2.15-3.92	1.93-4.0
S.D.	.54	.53	.54
GPA ₂	(n=276)	(n=52)	(n=328)
Mean	2.92	3.14	2.96
Range	1.98-4.0	2.12-4.0	1.98-4.0
S.D.	.48	.48	.49
GPA ₄	(n=286)	(n=103)	(n=389)
Mean	2.92	3.24	3.00
Range	1.90-4.0	1.97-4.0	1.90-4.0
S.D.	.46	.51	.50
GPA ₆	(n=288)	(n=104)	(n=392)
Mean	2.95	3.23	3.03
Range	1.98-3.97	2.24-4.0	1.98-4.0
S.D.	.47	.48	.49
GPA ₈	(n=288)	(n=104)	(n=392)
Mean	2.99	3.23	3.05
Range	2.13-3.94	2.25-3.98	2.13-3.98
S.D.	.44	.44	.45

The mean cumulative grade point averages at the end of the semesters identified were lower in the generic group than in the transfer group. The mean grade point average in the generic group remained fairly constant with a slight increase at the end of the junior and senior years. In the transfer group, the mean grade point average increased each semester until the end of the junior year (GPA₆) when a slight decrease (.01) occurred. The GPA₈ for this group remained the same as the GPA₆.

TABLE 20: MEANS, STANDARD DEVIATIONS AND RANGES ON SELECTED CUMULATIVE SEMESTER GRADE POINT AVERAGES FOR THE TOTAL LICENSE EXAM GROUP, SBTPE GROUP, AND NCLEX GROUP BY PASS-FAIL STATUS

Grade Point Averages		Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
GPA ₁		(n=119)	(n=14)	(n=55)	(n=9)	(n=63)	(n=5)
	Mean	2.96	2.61	3.06	2.70	2.86	2.43
	Range	1.96-4.0	1.93-3.38	2.11-4.0	2.14-3.38	1.96-3.92	1.93-2.79
	S.D.	.53	.44	.56	.49	.49	.32
GPA ₂		(n=260)	(n=54)	(n=193)	(n=49)	(n=67)	(n=5)
	Mean	2.99	2.71	3.00	2.72	2.95	2.52
	Range	1.98-4.0	2.03-3.57	1.98-4.0	2.03-3.57	2.17-3.84	2.19-2.86
	S.D.	.48	.38	.50	.39	.43	.25
GPA ₄		(n=307)	(n=62)	(n=228)	(n=57)	(n=79)	(n=5)
	Mean	3.04	2.72	3.02	2.73	3.10	2.59
	Range	1.90-4.0	2.14-3.94	1.90-4.0	2.10-3.94	2.28-3.90	2.36-2.75
	S.D.	.49	.39	.51	.40	.41	.18
GPA ₆		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	Mean	3.07	2.69	3.03	2.69	3.17	2.68
	Range	1.98-4.0	2.15-3.95	1.98-4.0	2.15-3.95	2.49-3.94	2.42-2.83
	S.D.	.47	.38	.49	.39	.39	.20
GPA ₈		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	Mean	3.10	2.73	3.06	2.73	3.21	2.76
	Range	2.13-3.98	2.20-3.74	2.13-3.98	2.20-3.37	2.54-3.94	2.51-2.97
	S.D.	.44	.36	.45	.37	.36	.20

Table 20 shows that the means for the cumulative semester grade point averages at the end of the first, second, fourth, six, and eighth semesters were higher in the license exam group which passed than in the group which failed. This was true for both the SBTPE group and the NCLEX group.

From the literature review, various grade point averages and grade averages were reported as being predictive of success or failure on the SBTPE. Courses were reviewed which were required in the School of Nursing curriculum and those that were similar in nature were grouped together. Grade averages were computed for several of the admission criteria which were required for entrance into clinical nursing courses. The admission science grade average (ADSCIGA) was computed by combining student grades on chemistry, biochemistry, anatomy and physiology and their respective labs. The admission mathematics-science grade average (ADMSCGA) was computed by combining student grades on mathematics plus chemistry, biochemistry, anatomy and physiology and their respective labs. The social science grade average (SSGA) was computed by combining student grades in sociology, family relations, general psychology, developmental psychology, and psychology of adjustment. The science grade average (SCIGA) was computed by combining student grades in chemistry, biochemistry, anatomy and physiology, microbiology and their respective labs. It must be noted that the above grade averages could only be computed if the student had an entry in each category. (Many of the above grade averages could not be computed due to the fact that East Carolina University was on the quarter system prior to the fall semester, 1978). Another important consideration was that the grade averages were calculated by using the first grade the student received in a particular course. (See Tables 21 and 22)

TABLE 21: SELECTED COMPOSITE GRADE AVERAGES BY ADMISSION CRITERIA FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables		Generic	Transfer	All Students
ADSCIGA (Chem 1120/1121 + Chem 2620/2621 + Biol 2120/2121)	Mean	(n=118) 2.90	(n=14) 3.31	(n=132) 2.94
	Range	1.67-4.0	2.17-4.0	1.67-4.0
	S.D.	.59	.62	.61
ADMSCGA (Math + Chem 1120/ 1121 - Chem 2620/ 2621 + Biol 2120/ 2121)	Mean	(n=108) 2.90	(n=5) 3.00	(n=113) 2.91
	Range	1.71-4.0	2.00-3.86	1.71-4.0
	S.D.	.57	.92	.58
SSGA (Soci 2110 + Home 2103 + Psyc 1050 + Psyc 3206 + Psyc 3275)	Mean	(n=271) 3.18	(n=7) 3.11	(n=278) 3.18
	Range	1.80-4.0	2.40-4.0	1.80-4.0
	S.D.	.52	.58	.52
SCIGA (Chem 1120/1121 + Chem 2620/2621 + Biol 2120/2121 + Biol 2110)	Mean	(n=117) 2.90	(n=12) 3.26	(n=129) 2.94
	Range	1.71-4.0	2.89-4.0	1.71-4.0
	S.D.	.58	.59	.59

The mean ADSCIGA, ADMSCGA, and SCIGA was higher for the group of transfer students than for the group of generic students. The mean SSGA was slightly higher for the group of generic students at 3.18 with the mean SSGA for the transfer students being 3.11. Minimum scores in each of the areas were lower for the generic group than for the transfer group although it must be remembered that these scores were computed using the first grade received. The mean grade average of the generic group remained the same at 2.90 when the mathematics grades were added to the ADSCIGA and again when microbiology grades were added to the ADSCIGA. In the transfer group, the introduction of the mathematics grades to the ADSCIGA resulted in a grade average decrease of .31.

In this group, the grade average decreased by .05 when microbiology grades were added to the ADSCIGA.

TABLE 22: SELECTED COMPOSITE GRADE AVERAGES BY ADMISSION CRITERIA FOR THE TOTAL LICENSE EXAM GROUP, SBTPE GROUP, AND NCLEX GROUP BY PASS-FAIL STATUS

Variables		Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
ADSCIGA (Chem 1120/1121 + Chem 2620/2621 + Biol 2120/2121)	Mean	(n=112) 2.94	(n=16) 2.77	(n=57) 3.06	(n=11) 2.83	(n=55) 2.82	(n=5) 2.63
	Range	1.67-4.0	2.17-3.67	1.83-4.0	2.17-3.67	1.67-4.0	2.17-3.0
	S.D.	.62	.48	.62	.52	.59	.38
ADMSCGA (Math + Chem 1120/1121 + Chem 2620/2621 + Biol 2120/2121)	Mean	(n=97) 2.92	(n=13) 2.65	(n=45) 3.00	(n=8) 2.63	(n=52) 2.86	(n=5) 2.69
	Range	1.71-4.0	2.14-3.14	1.86-4.0	2.14-3.14	1.71-4.0	2.29-3.0
	S.D.	.60	.34	.59	.39	.60	.28
SSGA (Soci 2110 + Home 2103 + Psyc 1050 + Psyc 3206 + Psyc 3275)	Mean	(n=218) 3.23	(n=50) 2.86	(n=161) 3.20	(n=45) 2.86	(n=57) 3.34	(n=5) 2.84
	Range	2.00-4.0	1.80-3.60	2.00-4.0	1.80-3.60	2.40-4.0	2.40-3.20
	S.D.	.51	.45	.54	.46	.42	.33
SCIGA (Chem 1120/1121 + Chem 2620/2621 + Biol 2120/2121 + Biol 2110)	Mean	(n=110) 2.93	(n=15) 2.76	(n=55) 3.04	(n=10) 2.81	(n=55) 2.82	(n=5) 2.66
	Range	1.71-4.0	2.14-3.57	1.86-4.0	2.14-3.57	1.71-3.86	2.29-3.0
	S.D.	.59	.46	.60	.52	.57	.33

The Table 22 shows that students who performed successfully on either the SBTPE or the NCLEX had a higher mean grade average in each of the admission criteria combinations than students who failed the respective examination. The greatest difference in the mean grade average of all students who passed and those who failed the licensing exam occurred in the social science composite grade average. This was also true in the NCLEX group while in the SBTPE group,

the greatest difference between those who passed and those who failed was found in the admission mathematics-science composite grade average. In the SBTPE group, the highest mean grade average (3.20) was observed in the social science course combination (SSGA) while the lowest mean grade average (2.63) was observed in the admission mathematics-science course combination (ADMSCGA). In the NCLEX group, the highest mean grade average (3.34) was observed in the social science course combination (SSGA) with the lowest mean grade average (2.63) found in the admission science combination (ADSCGA).

In addition, several nursing grade averages (NURSGA's) were computed. Due to the separation of nursing courses into theory and clinical courses in January 1980, comparisons of nursing grade averages could only be determined on the 1982 graduates. These data will be available on future classes and continuing investigation of NURSGA's and their effects on success or failure on the NCLEX is planned.

NURSGA₁ is an average of nursing theory grades which have a clinical corequisite (NURS 2200, NURS 2300, NURS 3100, NURS 3300, NURS 4000, NURS 4200, NURS 4400). Most students have data entered on all nursing theory courses, although it must be remembered that nursing courses at the sophomore level for the group of students in this study were not purely theoretical. At that time, the grade for the sophomore nursing courses included both theory and clinical performance.

The remaining NURSGA's could be computed only for the class of 1982. NURSGA₂ was computed by combining all required nursing courses grades (with the exception of NURS 2201) - theory, clinical, Nursing Perspectives, Nutrition, Issues in Nursing and Nursing Research. NURSGA₃ is an average of all clinical course grades (except NURS 2201). NURSGA₄ combines all nursing theory and clinical course grades (except NURS 2201) and does not include Nursing Perspectives, Nutrition, Issues, or Research. Nursing 2201 was excluded because the 1982 graduates took N2200 when it was a course which combined theory and clinical performance into one grade. For all NURSGA's it must be noted that the averages were calculated by using the

first grade the student received in a nursing course.

TABLE 23: GRADE AVERAGES OF SELECTED NURSING COURSES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Cumulative Grades		Generic	Transfer	All Students
NURSGA ₁ (N2200 + N2300 + N3100 + N3300 + N4000 + N4200 + N4400)	Mean Range S.D.	(n=217) 2.89 1.43-4.0 .62	(n=94) 3.12 2.00-4.0 .57	(n=311) 2.96 1.43-4.0 .61
NURSGA ₂ (All required nursing courses except N2201)	Mean Range S.D.	(n=62) 3.20 2.41-3.94 .36	(n=16) 3.36 2.59-3.94 .38	(n=78) 3.23 2.41-3.94 .37
NURSGA ₃ (N2301 + N3101 + N3301 + N4001 + N4201 + N4401)	Mean Range S.D.	(n=62) 3.47 3.00-4.0 .31	(n=23) 3.61 2.50-4.0 .34	(n=85) 3.51 2.50-4.0 .32
NURSGA ₄ (N2200 + N2300/ 2301 + N3100/3101 + N3300/3301 + N4000/4001 + N4200/4201 + N4400/4401)	Mean Range S.D.	(n=62) 3.23 2.46-4.0 .39	(n=23) 3.43 2.39-4.0 .40	(n=85) 3.28 2.38-4.0 .40

It can be seen from Table 23 that transfer students had higher mean nursing averages than generic students in all NURSGA's computed. The mean grade average for the clinical courses was also considerably higher than the mean grade average for the theory courses. There was very little difference in the grade averages when Nursing Perspectives, Nutrition, Issues or Research were included in the overall nursing grade average.

TABLE 24: GRADE AVERAGES OF SELECTED NURSING COURSES FOR NCLEX GROUP
BY PASS-FAIL STATUS

Nursing Grade Average		NCLEX Group	
		Pass	Fail
NURSGPA ₁ (N2200 + N2300 + N3100 + N3300 + N4000 + N4200 + N4400)	Mean Range S.D.	(n=79) 3.10 2.00-4.0 .53	(n=5) 2.46 2.00-3.0 .41
NURSGPA ₂ (all required nursing courses except N2201)	Mean Range S.D.	(n=71) 3.24 2.59-3.94 .35	(n=5) 2.81 2.41-3.00 .24
NURSGPA ₃ (N2301 + N3101 + N3301 + N4001 + N4201 + N4401)	Mean Range S.D.	(n=78) 3.51 2.50-4.0 .31	(n=5) 3.40 3.00-4.0 .55
NURSGPA ₄ (N2200 + N2300/2301 N3100/3101 + N3300/ 3301 + N4000/4001 + N4200/4201 + N4400/ 4401)	Mean Range S.D.	(n=78) 3.29 2.39-4.0 .39	(n=5) 2.89 2.46-3.15 .26

Table 24 shows that the students who passed the NCLEX had higher mean nursing grade averages than those who failed. The largest difference in the grade averages (.64) in those students who passed the NCLEX and those who failed the NCLEX was in NURSGPA₁ - the theory courses. No student who failed the NCLEX had an 'A' in any theory course which had a clinical corequisite. The smallest difference in the grade averages (.11) between the NCLEX pass and the NCLEX fail groups was in the NURSGPA₃ - the clinical courses.

Grades earned in all required courses were retrieved and entered on the data collection tool. If a student repeated a course due a 'D' or 'F', the second grade was also retrieved and entered separately. Tables 25-30 show the distribution of grades in various required and cognate courses.

TABLE 25: DISTRIBUTION OF FIRST GRADES IN REQUIRED AND COGNATE COURSES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Courses	Grade Received	Generic	Transfer	All Students
General Chemistry		(n=140)	(n=24)	(n=164)
	A	16.4 %	41.7 %	20.1 %
	B	34.3 %	20.8 %	32.3 %
	C	39.3 %	33.3 %	38.4 %
	D	7.9 %	4.2 %	7.3 %
	F	2.1 %	0.0 %	1.8 %
	Mean	2.55	3.0	2.62
	S.D.	.93	.98	.95
General Chemistry Lab		(n=129)	(n=22)	(n=151)
	A	51.2 %	68.2 %	53.6 %
	B	38.8 %	27.3 %	37.1 %
	C	9.3 %	4.5 %	8.6 %
	D	0.8 %	0.0 %	0.7 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.40	3.64	3.44
	S.D.	.69	.58	.68
Biochemistry		(n=142)	(n=39)	(n=181)
	A	23.9 %	33.3 %	26.0 %
	B	28.9 %	33.3 %	29.8 %
	C	31.7 %	20.5 %	29.3 %
	D	12.0 %	10.3 %	11.6 %
	F	3.5 %	2.6 %	3.3 %
	Mean	2.58	2.85	2.64
	S.D.	1.1	1.1	1.1
Biochemistry Lab		(n=133)	(n=37)	(n=170)
	A	40.6 %	51.4 %	42.9 %
	B	45.1 %	43.2 %	44.7 %
	C	12.8 %	0.0 %	10.0 %
	D	1.5 %	5.4 %	2.4 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.25	3.41	3.28
	S.D.	.73	.76	.74

Courses	Grade Received	Generic	Transfer	All Students
Anatomy and Physiology		(n=208)	(n=53)	(n=261)
	A	10.6 %	32.1 %	14.9 %
	B	26.9 %	32.1 %	28.0 %
	C	38.9 %	17.0 %	34.5 %
	D	18.8 %	17.0 %	18.4 %
	F	4.8 %	1.9 %	4.2 %
	Mean	2.20	2.76	2.31
	S.D.	1.0	1.1	1.1
Anatomy and Physiology Lab		(n=194)	(n=46)	(n=240)
	A	46.4 %	56.5 %	48.3 %
	B	38.7 %	34.8 %	37.9 %
	C	13.9 %	8.7 %	12.9 %
	D	0.5 %	0.0 %	0.4 %
	F	0.5 %	0.0 %	0.4 %
	Mean	3.30	3.48	3.33
	S.D.	.76	.66	.75
Mathematics		(n=198)	(n=24)	(n=222)
	A	30.8 %	33.3 %	31.1 %
	B	40.4 %	25.0 %	38.7 %
	C	24.7 %	25.0 %	24.8 %
	D	4.0 %	12.5 %	5.0 %
	F	0.0 %	4.2 %	0.5 %
	Mean	2.98	2.71	2.95
	S.D.	.85	1.2	.89
Microbiology		(n=275)	(n=72)	(n=347)
	A	20.7 %	30.6 %	22.8 %
	B	45.8 %	58.3 %	48.4 %
	C	32.4 %	11.1 %	28.0 %
	D	0.7 %	0.0 %	0.6 %
	F	0.4 %	0.0 %	0.3 %
	Mean	2.86	3.19	2.93
	S.D.	.76	.62	.74
English 1100		(n=142)	(n=2)	(n=144)
	A	16.9 %	50.0 %	17.4 %
	B	49.3 %	50.0 %	49.3 %
	C	31.0 %	0.0 %	30.6 %
	D	2.1 %	0.0 %	2.1 %
	F	0.7 %	0.0 %	0.7 %
	Mean	2.80	3.50	2.81
	S.D.	.77	.71	.77

Courses	Grade Received	Generic	Transfer	All Students
English 1200		(n=140)	(n=8)	(n=148)
	A	25.7 %	75.0 %	28.4 %
	B	42.1 %	25.0 %	41.2 %
	C	31.4 %	0.0 %	29.7 %
	D	0.7 %	0.0 %	0.7 %
	F	0.0 %	0.0 %	0.0 %
	Mean	2.93	3.75	2.97
	S.D.	.77	.46	.78
Sociology 2110		(n=280)	(n=28)	(n=308)
	A	27.9 %	39.3 %	28.9 %
	B	46.1 %	50.0 %	46.4 %
	C	22.9 %	10.7 %	21.8 %
	D	3.2 %	0.0 %	2.9 %
	F	0.0 %	0.0 %	0.0 %
	Mean	2.99	3.29	3.01
	S.D.	.80	.66	.79
Home 2103		(n=285)	(n=77)	(n=362)
	A	37.9 %	55.8 %	41.7 %
	B	45.6 %	37.7 %	43.9 %
	C	13.3 %	6.5 %	11.9 %
	D	3.2 %	0.0 %	2.5 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.20	3.49	3.25
	S.D.	.78	.62	.76
Psyc 1050		(n=284)	(n=11)	(n=295)
	A	51.8 %	27.3 %	50.8 %
	B	35.9 %	36.4 %	35.9 %
	C	11.3 %	36.4 %	12.2 %
	D	1.1 %	0.0 %	1.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.38	2.91	3.37
	S.D.	.73	.83	.73
Psyc 3206		(n=281)	(n=81)	(n=362)
	A	35.9 %	48.1 %	38.7 %
	B	42.0 %	40.7 %	41.7 %
	C	19.9 %	11.1 %	18.0 %
	D	2.1 %	0.0 %	1.7 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.12	3.37	3.17
	S.D.	.80	.68	.78

Courses	Grade Received	Generic	Transfer	All Students
Psyc 3275		(n=283)	(n=89)	(n=372)
	A	40.6%	57.3%	44.6%
	B	40.3%	32.6%	38.4%
	C	16.3%	7.9%	14.2%
	D	2.8%	2.2%	2.7%
	F	0.0%	0.0%	0.0%
	Mean	3.19	3.45	3.25
	S.D.	.81	.74	.80
Speech		(n=282)	(n=67)	(n=349)
	A	37.6%	47.8%	39.5%
	B	55.0%	47.8%	53.6%
	C	7.4%	3.0%	6.6%
	D	0.0%	1.5%	0.3%
	F	0.0%	0.0%	0.0%
	Mean	3.30	3.42	3.32
	S.D.	.60	.63	.61

Table 25 shows the distribution of the first grades earned in sixteen required and cognate courses for all students and by generic and transfer classification. The difference in the number of students in the generic and transfer groups for each course should be considered. The percentage of transfer students earning an 'A' was higher than the percentage of generic students earning an 'A' for every course shown except Psychology 1050. The percentage of generic students earning an 'A' (51.2%) was highest for the General Chemistry Lab course while the percentage of generic students earning an 'A' (10.6%) was lowest in the Anatomy and Physiology Course. The percentage of generic students earning a 'D' or an 'F' (23.6%) was highest for the Anatomy and Physiology course and lowest for Speech, where no 'D's' or 'F's' were earned.

In the transfer group, the percentage of transfer students earning an 'A' (75%) was highest in English 1200 although it must be noted that the number of transfer students who took this course was eight. The percentage of transfer students earning an 'A' was lowest (27.3%) in Psychology 1050. The percentage of transfer students earning a 'D' or 'F' (18.9%) was highest again in the Anatomy and Physiology course while no transfer students earned a 'D' or 'F' in General Chemistry Lab, Anatomy and Physiology Lab, Microbiology, English 1100, English 1200, Sociology 2110, Home 2103, Psychology 1050, and Psychology 3206. In all but two courses (Math and Psychology 1050) the mean grade received was higher in the transfer group than in the generic group.

TABLE 26: DISTRIBUTION OF FIRST GRADES IN REQUIRED AND COGNATE COURSES FOR THE TOTAL LICENSE GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
General Chemistry		(n=138)	(n=20)	(n=77)	(n=15)	(n=61)	(n=5)
	A	21.0 %	5.0 %	26.0 %	6.7 %	14.8 %	0.0 %
	B	31.9 %	30.0 %	27.3 %	26.7 %	37.7 %	40.0 %
	C	37.7 %	55.0 %	40.3 %	53.3 %	34.4 %	60.0 %
	D	7.2 %	10.0 %	3.9 %	13.1 %	11.5 %	0.0 %
	F	2.2 %	0.0 %	2.6 %	0.0 %	1.6 %	0.0 %
	Mean	2.62	2.30	2.70	2.27	2.53	2.40
	S.D.	.97	.73	.99	.00	.94	.55
General Chemistry Lab		(n=129)	(n=17)	(n=68)	(n=12)	(n=61)	(n=5)
	A	51.2 %	64.7 %	60.3 %	66.7 %	41.0 %	60.0 %
	B	38.8 %	29.4 %	30.9 %	33.3 %	47.5 %	20.0 %
	C	9.3 %	5.9 %	8.8 %	0.0 %	9.8 %	20.0 %
	D	0.8 %	0.0 %	0.0 %	0.0 %	1.6 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.40	3.59	3.52	3.67	3.28	3.40
	S.D.	.69	.62	.66	.49	.71	.89
Biochemistry		(n=152)	(n=23)	(n=88)	(n=18)	(n=64)	(n=5)
	A	28.3 %	13.0 %	27.3 %	11.1 %	29.7 %	20.0 %
	B	28.9 %	26.1 %	27.3 %	27.8 %	31.3 %	20.0 %
	C	28.3 %	39.1 %	27.3 %	33.3 %	29.7 %	60.0 %
	D	10.5 %	21.7 %	12.5 %	27.8 %	7.8 %	0.0 %
	F	3.9 %	0.0 %	5.7 %	0.0 %	1.6 %	0.0 %
	Mean	2.67	2.30	2.58	2.22	2.80	2.60
	S.D.	1.1	.97	1.2	1.0	1.0	.89
Biochemistry Lab		(n=144)	(n=20)	(n=82)	(n=15)	(n=62)	(n=5)
	A	42.2 %	35.0 %	56.1 %	40.0 %	24.2 %	20.0 %
	B	44.4 %	55.0 %	35.4 %	53.3 %	56.5 %	60.0 %
	C	10.4 %	10.0 %	7.3 %	6.7 %	14.5 %	20.0 %
	D	2.8 %	0.0 %	1.2 %	0.0 %	4.8 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.26	3.25	3.46	3.33	3.00	3.00
	S.D.	.76	.64	.69	.62	.77	.71
Anatomy and Physiology		(n=209)	(n=31)	(n=141)	(n=32)	(n=68)	(n=5)
	A	16.3 %	5.4 %	17.0 %	6.3 %	14.7 %	0.0 %
	B	30.1 %	10.8 %	29.1 %	12.5 %	32.4 %	0.0 %
	C	33.0 %	45.9 %	30.5 %	46.9 %	38.2 %	40.0 %
	D	16.7 %	29.7 %	9.9 %	25.0 %	10.3 %	60.0 %
	F	3.8 %	8.1 %	3.5 %	9.4 %	4.4 %	0.0 %
	Mean	2.38	1.77	2.36	1.81	2.43	1.4
	S.D.	1.1	.96	1.1	1.0	1.0	.55

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Anatomy and Physiology Lab		(n=191)	(n=35)	(n=124)	(n=30)	(n=67)	(n=5)
	A	48.2 %	42.9 %	52.4 %	43.3 %	40.3 %	40.0 %
	B	38.7 %	34.3 %	39.5 %	36.7 %	37.3 %	20.0 %
	C	12.0 %	22.9 %	7.3 %	20.0 %	20.9 %	40.0 %
	D	0.5 %	0.0 %	0.0 %	0.0 %	1.5 %	0.0 %
	F	0.5 %	0.0 %	0.8 %	0.0 %	0.0 %	0.0 %
	Mean	3.34	3.20	3.43	3.23	3.16	3.00
	S.D.	.75	.80	.70	.77	.81	1.0
Mathematics		(n=176)	(n=37)	(n=117)	(n=32)	(n=59)	(n=5)
	A	31.8 %	16.2 %	28.2 %	15.6 %	39.0 %	20.0 %
	B	40.3 %	35.1 %	41.9 %	31.3 %	37.3 %	60.0 %
	C	22.7 %	40.5 %	24.8 %	43.8 %	18.6 %	20.0 %
	D	4.5 %	8.1 %	4.3 %	9.4 %	5.1 %	0.0 %
	F	0.6 %	0.0 %	0.9 %	0.0 %	0.0 %	0.0 %
	Mean	2.98	2.60	2.92	2.53	3.10	3.00
	S.D.	.89	.87	.88	.88	.89	.71
Microbiology		(n=274)	(n=55)	(n=201)	(n=50)	(n=73)	(n=5)
	A	22.6 %	12.7 %	23.9 %	14.0 %	19.2 %	0.0 %
	B	48.9 %	50.9 %	48.3 %	48.0 %	50.7 %	80.0 %
	C	27.4 %	36.4 %	26.4 %	38.0 %	30.0 %	20.0 %
	D	0.7 %	0.0 %	1.0 %	0.0 %	0.0 %	0.0 %
	F	0.4 %	0.0 %	0.5 %	0.0 %	0.0 %	0.0 %
	Mean	2.93	2.76	2.94	2.76	2.89	2.80
	S.D.	.75	.67	.77	.69	.70	.45
English 1100		(n=125)	(n=16)	(n=72)	(n=11)	(n=53)	(n=5)
	A	18.4 %	6.3 %	18.1 %	9.1 %	18.9 %	0.0 %
	B	48.8 %	50.0 %	55.6 %	54.5 %	39.6 %	40.0 %
	C	29.6 %	43.8 %	25.0 %	36.4 %	35.8 %	60.0 %
	D	2.4 %	0.0 %	1.4 %	0.0 %	3.8 %	0.0 %
	F	0.8 %	0.0 %	0.0 %	0.0 %	1.9 %	0.0 %
	Mean	2.82	2.63	2.90	2.73	2.70	2.40
	S.D.	.79	.62	.70	.65	.89	.55
English 1200		(n=128)	(n=17)	(n=72)	(n=12)	(n=56)	(n=5)
	A	28.9 %	17.6 %	31.9 %	25.0 %	25.0 %	0.0 %
	B	43.0 %	35.3 %	36.1 %	33.3 %	51.8 %	40.0 %
	C	27.3 %	47.1 %	30.6 %	41.7 %	23.2 %	60.0 %
	D	0.8 %	0.0 %	1.4 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.00	2.71	2.99	2.83	3.02	2.40
	S.D.	.77	.77	.83	.84	.70	.55

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Sociology 2110		(n=245)	(n=52)	(n=181)	(n=47)	(n=64)	(n=5)
	A	31.4 %	13.5 %	34.3 %	14.9 %	23.4 %	0.0 %
	B	45.3 %	55.8 %	43.6 %	55.3 %	50.0 %	60.0 %
	C	20.4 %	26.9 %	18.8 %	25.5 %	25.0 %	40.0 %
	D	2.9 %	3.8 %	3.3 %	4.3 %	1.6 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.05	2.79	3.09	2.81	2.95	2.60
	S.D.	.80	.72	.81	.74	.74	.55
Home 2103		(n=284)	(n=60)	(n=214)	(n=55)	(n=70)	(n=5)
	A	45.1 %	20.0 %	43.5 %	20.0 %	50.0 %	20.0 %
	B	42.6 %	55.0 %	42.5 %	52.7 %	42.9 %	80.0 %
	C	9.9 %	21.7 %	11.2 %	23.6 %	5.7 %	0.0 %
	D	2.5 %	3.3 %	2.8 %	3.6 %	1.4 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.30	2.92	3.27	2.89	3.41	3.20
	S.D.	.75	.74	.77	.76	.67	.45
Psychology 1050		(n=233)	(n=51)	(n=175)	(n=46)	(n=58)	(n=5)
	A	53.2 %	33.3 %	57.1 %	34.8 %	41.4 %	20.0 %
	B	34.3 %	51.0 %	29.7 %	50.0 %	48.3 %	60.0 %
	C	11.6 %	13.7 %	12.6 %	15.2 %	8.6 %	0.0 %
	D	0.9 %	2.0 %	0.6 %	0.0 %	1.7 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.40	3.16	3.43	3.20	3.29	2.80
	S.D.	.73	.73	.73	.69	.70	1.1
Psychology 3206		(n=288)	(n=59)	(n=213)	(n=54)	(n=75)	(n=5)
	A	43.1 %	13.6 %	38.0 %	13.0 %	57.3 %	20.0 %
	B	40.3 %	49.2 %	42.3 %	50.0 %	34.7 %	40.0 %
	C	15.6 %	32.2 %	18.3 %	31.5 %	8.0 %	40.0 %
	D	1.0 %	5.1 %	1.4 %	5.6 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.25	2.71	3.17	2.70	3.49	2.80
	S.D.	.75	.77	.77	.77	.65	.84
Psychology 3275		(n=293)	(n=59)	(n=217)	(n=54)	(n=76)	(n=5)
	A	46.4 %	23.7 %	38.7 %	22.2 %	68.4 %	40.0 %
	B	39.2 %	42.4 %	42.9 %	46.3 %	28.9 %	0.0 %
	C	12.3 %	27.1 %	16.1 %	24.1 %	1.3 %	60.0 %
	D	2.0 %	6.8 %	2.3 %	7.4 %	1.3 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.30	2.83	3.18	2.83	3.65	2.80
	S.D.	.76	.87	.78	.86	.58	1.1

Courses	Grade Received	Total License Exam Group		SETPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Speech		(n=275)	(n=58)	(n=202)	(n=53)	(n=73)	(n=5)
	A	38.9 %	36.2 %	39.1 %	35.8 %	38.4 %	40.0 %
	B	53.8 %	56.9 %	52.0 %	56.5 %	58.9 %	60.0 %
	C	6.9 %	6.9 %	8.4 %	7.5 %	2.7 %	0.0 %
	D	0.4 %	0.0 %	0.5 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.31	3.29	3.30	3.28	3.36	3.40
	S.D.	.61	.59	.64	.60	.54	.55

In analyzing the distribution of the first grades earned in the required and cognate courses for the license groups, the small number of students who failed the NCLEX caused the percentages to be high and possibly misleading when compared with percentages given for the SBTPE fail group. As shown in Table 26, the mean first grade received in most of the required and cognate courses was higher for those students who passed either SBTPE or NCLEX than for those who failed. Exceptions to this include the General Chemistry Lab course in which the mean grade for those who failed either licensing exam was higher than for those who passed. In addition in the NCLEX group, the mean grade received by the group which failed in the Biochemistry Lab and Speech courses was the same or slightly higher than the mean grade of the group which passed.

Repeating a required or cognate course did not ensure that a student would pass the SBTPE or NCLEX. As seen in Appendix B entitled "Distribution of Second Grades in Selected Required and Cognate Courses For The Total License Group, SBTPE Group, NCLEX Group, and By Pass-Fail Status," one (9.1%) out of eleven students repeating General Chemistry failed the licensing exam, three (30%) out of ten students repeating Biochemistry failed the exam, nine (31%) out of 29 students repeating Anatomy and Physiology failed the exam, one out of 3 (33.3%) students repeating the Anatomy and Physiology Lab course failed the exam and two (50%) out of 4 students repeating Mathematics failed the licensing exam. Only one student repeated Microbiology and this student passed the licensing exam.

TABLE 27: DISTRIBUTION OF FIRST GRADES IN REQUIRED NURSING COURSES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Courses	Grade Received	Generic	Transfer	All Students
Nurs 1000		(n=286)	(n=97)	(n=383)
	A	35.0 %	47.4 %	38.1 %
	B	50.7 %	44.3 %	41.1 %
	C	13.6 %	8.2 %	12.3 %
	D	0.7 %	0.0 %	0.5 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.20	3.39	3.25
	S.D.	.69	.64	.68
Nurs 2106		(n=287)	(n=90)	(n=377)
	A	2.4 %	7.8 %	3.7 %
	B	72.1 %	72.2 %	72.1 %
	C	25.4 %	20.0 %	24.1 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	2.77	2.88	2.80
	S.D.	.48	.52	.49
Nurs 2200		(n=218)	(n=94)	(n=312)
	A	21.1 %	47.9 %	29.2 %
	B	51.4 %	47.9 %	50.3 %
	C	26.1 %	4.3 %	19.6 %
	D	0.9 %	0.0 %	0.6 %
	F	0.5 %	0.0 %	0.3 %
	Mean	2.92	3.44	3.07
	S.D.	.74	.58	.73
Nurs 2300		(n=230)	(n=94)	(n=324)
	A	27.4 %	46.8 %	33.0 %
	B	31.3 %	37.2 %	33.0 %
	C	33.9 %	14.9 %	28.4 %
	D	7.0 %	1.1 %	5.2 %
	F	0.4 %	0.0 %	0.3 %
	Mean	2.78	3.30	2.93
	S.D.	.94	.76	.92
Nurs 2301		(n=62)	(n=23)	(n=85)
	A	32.3 %	47.8 %	36.5 %
	B	61.3 %	43.5 %	56.5 %
	C	6.5 %	8.7 %	7.1 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.26	3.39	3.29
	S.D.	.57	.66	.59

Courses	Grade Received	Generic	Transfer	All Students
Nurs 3100		(n=288)	(n=104)	(n=392)
	A	20.5 %	34.6 %	24.2 %
	B	46.2 %	40.4 %	44.6 %
	C	28.1 %	25.0 %	27.3 %
	D	4.9 %	0.0 %	3.6 %
	F	0.3 %	0.0 %	0.3 %
	Mean	2.82	3.10	2.89
	S.D.	.83	.77	.82
Nurs 3101		(n=86)	(n=31)	(n=117)
	A	27.9 %	45.2 %	32.5 %
	B	70.9 %	51.6 %	65.8 %
	C	1.2 %	3.2 %	1.7 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.27	3.42	3.31
	S.D.	.47	.56	.50
Nurs 3300		(n=288)	(n=104)	(n=392)
	A	26.7 %	30.8 %	27.8 %
	B	39.9 %	42.3 %	40.6 %
	C	30.6 %	25.0 %	29.1 %
	D	2.8 %	1.9 %	2.6 %
	F	0.0 %	0.0 %	0.0 %
	Mean	2.91	3.02	2.94
	S.D.	.82	.80	.82
Nurs 3301		(n=102)	(n=42)	(n=144)
	A	53.9 %	64.3 %	56.9 %
	B	41.2 %	33.3 %	38.9 %
	C	4.9 %	2.4 %	4.2 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.49	3.62	3.52
	S.D.	.59	.54	.58
Nurs 4000		(n=288)	(n=104)	(n=392)
	A	16.7 %	28.8 %	19.9 %
	B	51.4 %	45.2 %	49.7 %
	C	31.6 %	25.0 %	29.8 %
	D	0.3 %	1.0 %	0.5 %
	F	0.0 %	0.0 %	0.0 %
	Mean	2.84	3.02	2.89
	S.D.	.69	.76	.71

Courses	Grade Received	Generic	Transfer	All Students
Nurs 4001		(n=183)	(n=71)	(n=254)
	A	43.2 %	54.9 %	46.5 %
	B	55.2 %	45.1 %	52.4 %
	C	1.6 %	0.0 %	1.2 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.42	3.55	3.45
	S.D.	.53	.50	.52
Nurs 4200		(n=287)	(n=104)	(n=391)
	A	26.1 %	26.9 %	26.3 %
	B	46.3 %	46.2 %	46.3 %
	C	24.0 %	25.0 %	24.3 %
	D	3.1 %	1.9 %	2.8 %
	F	0.3 %	0.0 %	0.3 %
	Mean	2.95	2.98	2.96
	S.D.	.81	.78	.80
Nurs 4201		(n=174)	(n=68)	(n=242)
	A	51.7 %	55.9 %	52.9 %
	B	46.6 %	39.7 %	44.6 %
	C	1.7 %	4.4 %	2.5 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.50	3.52	3.50
	S.D.	.54	.59	.55
Nurs 4320		(n=286)	(n=104)	(n=390)
	A	36.4 %	42.3 %	37.9 %
	B	46.9 %	47.1 %	46.9 %
	C	15.4 %	10.6 %	14.1 %
	D	1.0 %	0.0 %	0.8 %
	F	0.3 %	0.0 %	0.3 %
	Mean	3.18	3.32	3.22
	S.D.	.75	.66	.73
Nurs 4360		(n=288)	(n=104)	(n=392)
	A	25.0 %	26.9 %	25.5 %
	B	60.4 %	59.6 %	60.2 %
	C	14.2 %	13.5 %	14.0 %
	D	0.3 %	0.0 %	0.3 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.10	3.14	3.11
	S.D.	.63	.62	.63

Courses	Grade Received	Generic	Transfer	All Students
Nurs 4400		(n=288)	(n=104)	(n=392)
	A	19.8 %	22.1 %	20.4 %
	B	41.0 %	49.0 %	43.1 %
	C	36.1 %	26.9 %	33.7 %
	D	2.4 %	1.0 %	2.0 %
	F	0.7 %	1.0 %	0.8 %
	Mean	2.77	2.90	2.80
	S.D.	.82	.78	.81
Nurs 4401		(n=171)	(n=68)	(n=239)
	A	~~64.3~~ 34.5 %	69.1 %	65.7 %
	B	34.5 %	29.4 %	33.1 %
	C	1.2 %	1.5 %	1.3 %
	D	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %
	Mean	3.63	3.68	3.64
	S.D.	.51	.50	.51

As shown in Table 27, the mean course grade received in each nursing course was higher for the transfer group than for the generic group. The percentage of transfer students making an 'A' was higher than the percentage of generic students making an 'A' for every course shown although these percentages were very close for NURS 4200, NURS 4360, and NURS 4400. The percentage of generic students earning an 'A' (64.3%) was highest in NURS 4401 while the percentage of generic students earning an 'A' (2.4%) was lowest in NURS 2106. The percentage of generic students earning a 'D' or an 'F' (7.4%) was highest in NURS 2300 with the next highest percentage of generic students (5.2%) earning a 'D' or an 'F' in NURS 3100. No student in the generic group received a grade of 'D' or 'F' in the following courses: NURS 2106, NURS 2301, NURS 3101, NURS 3301, NURS 4001, NURS 4201, and NURS 4401.

In the transfer group, the percentage of students earning an 'A' (69.1%) was highest in NURS 4401 and lowest in NURS 2106 with 7.8% earning an 'A'. The percentage of transfer students earning a 'D' or an 'F' (1.9%) was highest in NURS 3300 and NURS 4200. No student in the transfer group received a grade of 'D' or 'F' in the following courses: NURS 1000, NURS 2106, NURS 2200, NURS 2301, NURS 3100, NURS 3101, NURS 3301, NURS 4001, NURS 4201, NURS 4320, NURS 4360, and NURS 4401. The mean grades for the clinical courses are higher than the mean grades for the theory courses in both the generic and transfer groups.

TABLE 28: DISTRIBUTION OF FIRST GRADES IN REQUIRED NURSING COURSES FOR THE TOTAL LICENSE GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 1000		(n=302)	(n=62)	(n=223)	(n=57)	(n=79)	(n=5)
	A	40.1 %	14.5 %	46.2 %	15.5 %	36.7 %	0.0 %
	B	45.7 %	72.6 %	43.0 %	71.9 %	53.2 %	80.0 %
	C	12.9 %	11.3 %	13.9 %	10.5 %	10.1 %	20.0 %
	D	0.3 %	1.6 %	0.4 %	1.8 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.28	3.00	3.28	3.02	3.27	2.80
	S.D.	.69	.57	.71	.58	.64	.47
Nurs 2106		(n=297)	(n=61)	(n=224)	(n=56)	(n=73)	(n=5)
	A	4.4 %	0.0 %	5.4 %	0.0 %	1.4 %	0.0 %
	B	73.7 %	60.7 %	75.4 %	62.5 %	68.5 %	40.0 %
	C	21.9 %	39.3 %	19.2 %	37.5 %	30.1 %	60.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	2.83	2.61	2.82	2.63	2.71	2.40
	S.D.	.48	.49	.48	.49	.49	.55
Nurs 2200		(n=249)	(n=44)	(n=170)	(n=39)	(n=79)	(n=5)
	A	31.7 %	9.1 %	29.4 %	10.3 %	36.7 %	0.0 %
	B	52.2 %	43.2 %	52.4 %	46.2 %	51.9 %	20.0 %
	C	15.3 %	45.5 %	17.6 %	43.6 %	10.1 %	60.0 %
	D	0.4 %	2.3 %	0.6 %	0.0 %	0.0 %	20.0 %
	F	0.4 %	0.0 %	0.0 %	0.0 %	1.3 %	0.0 %
	Mean	3.15	2.59	3.12	2.67	3.23	2.00
	S.D.	.71	.69	.70	.66	.73	.71
Nurs 2300		(n=256)	(n=49)	(n=177)	(n=44)	(n=79)	(n=5)
	A	35.9 %	8.2 %	35.0 %	9.1 %	38.0 %	0.0 %
	B	35.5 %	26.5 %	35.0 %	25.0 %	36.7 %	40.0 %
	C	23.4 %	55.1 %	22.6 %	54.5 %	25.3 %	60.0 %
	D	5.1 %	8.2 %	7.3 %	9.1 %	0.0 %	0.0 %
	F	0.0 %	2.0 %	0.0 %	2.3 %	0.0 %	0.0 %
	Mean	3.02	2.31	2.98	2.30	3.13	2.40
	S.D.	.89	.82	.94	.85	.79	.55
Nurs 2301		(n=78)	(n=5)	(n=0)	(n=0)	(n=78)	(n=5)
	A	34.6 %	40.0 %			34.6 %	40.0 %
	B	59.0 %	40.0 %			59.0 %	40.0 %
	C	6.4 %	20.0 %			6.4 %	20.0 %
	D	0.0 %	0.0 %			0.0 %	0.0 %
	F	0.0 %	0.0 %			0.0 %	0.0 %
	Mean	3.28	3.20			3.28	3.20
	S.D.	.58	.84			.58	.84

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 3100		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	A	25.8 %	4.8 %	23.0 %	5.3 %	33.7 %	0.0 %
	B	46.1 %	40.3 %	47.8 %	42.1 %	41.3 %	20.0 %
	C	24.2 %	50.0 %	24.3 %	47.4 %	23.7 %	80.0 %
	D	3.5 %	4.8 %	4.3 %	5.3 %	1.3 %	0.0 %
	F	0.3 %	0.0 %	0.4 %	0.0 %	0.0 %	0.0 %
	Mean	2.94	2.45	2.89	2.47	3.08	2.20
	S.D.	.82	.67	.82	.68	.79	.45
Nurs 3101		(n=105)	(n=10)	(n=25)	(n=5)	(n=80)	(n=5)
	A	33.3 %	20.0 %	32.0 %	0.0 %	33.7 %	40.0 %
	B	64.8 %	80.0 %	64.0 %	100.0 %	65.0 %	60.0 %
	C	1.9 %	0.0 %	4.0 %	0.0 %	1.3 %	0.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.31	3.20	3.28	3.00	3.33	3.40
	S.D.	.51	.42	.54	.00	.50	.55
Nurs 3300		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	A	28.7 %	9.7 %	27.8 %	8.8 %	31.3 %	20.0 %
	B	45.2 %	25.8 %	44.3 %	28.1 %	47.5 %	0.0 %
	C	23.5 %	61.3 %	24.3 %	59.6 %	21.2 %	80.0 %
	D	2.6 %	3.2 %	3.5 %	3.5 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.00	2.42	2.97	2.42	3.10	2.40
	S.D.	.79	.71	.81	.71	.72	.89
Nurs 3301		(n=125)	(n=15)	(n=45)	(n=10)	(n=80)	(n=5)
	A	58.4 %	40.0 %	40.0 %	30.0 %	68.8 %	60.0 %
	B	39.2 %	40.0 %	55.6 %	50.0 %	30.0 %	20.0 %
	C	2.4 %	20.0 %	4.4 %	20.0 %	1.3 %	20.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.56	3.20	3.36	3.10	3.68	3.40
	S.D.	.55	.78	.57	.74	.50	.89
Nurs 4000		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	A	21.0 %	6.5 %	20.9 %	7.0 %	21.3 %	0.0 %
	B	52.9 %	41.9 %	53.0 %	42.1 %	52.5 %	40.0 %
	C	25.8 %	51.6 %	25.7 %	50.9 %	26.3 %	60.0 %
	D	0.3 %	0.0 %	0.4 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	2.95	2.55	2.94	2.56	2.95	2.40
	S.D.	.59	.62	.69	.63	.69	.55

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 4001		(n=204)	(n=37)	(n=124)	(n=32)	(n=80)	(n=5)
	A	50.0 %	21.9 %	50.0 %	21.9 %	50.0 %	40.0 %
	B	47.6 %	78.1 %	47.6 %	78.1 %	50.0 %	60.0 %
	C	2.4 %	0.0 %	2.4 %	0.0 %	0.0 %	0.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean S.D.	3.48 .55	3.22 .42	3.48 .55	3.22 .42	3.50 .50	3.40 .55
Nurs 4200		(n=309)	(n=62)	(n=229)	(n=57)	(n=80)	(n=5)
	A	28.5 %	8.1 %	23.1 %	7.0 %	43.8 %	20.0 %
	B	46.0 %	54.8 %	49.3 %	54.4 %	36.2 %	60.0 %
	C	23.3 %	29.0 %	24.9 %	29.8 %	18.8 %	20.0 %
	D	2.3 %	6.5 %	2.6 %	7.0 %	1.3 %	0.0 %
	F	0.0 %	1.6 %	0.0 %	1.8 %	0.0 %	0.0 %
	Mean S.D.	3.01 .78	2.61 .80	2.93 .76	2.58 .80	3.23 .80	3.00 .71
Nurs 4201		(n=196)	(n=33)	(n=116)	(n=28)	(n=80)	(n=5)
	A	55.6 %	39.4 %	51.7 %	39.3 %	61.3 %	40.0 %
	B	42.4 %	54.5 %	46.6 %	53.6 %	36.2 %	60.0 %
	C	2.0 %	6.1 %	1.7 %	7.1 %	2.5 %	0.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean S.D.	3.50 .54	3.33 .60	3.50 .54	3.32 .61	3.59 .54	3.40 .55
Nurs 4320		(n=310)	(n=61)	(n=230)	(n=56)	(n=80)	(n=5)
	A	40.3 %	16.4 %	39.6 %	17.8 %	42.5 %	0.0 %
	B	46.8 %	54.1 %	46.1 %	55.4 %	48.7 %	40.0 %
	C	12.3 %	26.2 %	13.5 %	23.2 %	8.8 %	60.0 %
	D	0.3 %	3.3 %	0.4 %	3.6 %	0.0 %	0.0 %
	F	0.3 %	0.0 %	0.4 %	0.0 %	0.0 %	0.0 %
	Mean S.D.	3.27 .71	2.84 .73	3.24 .73	2.88 .74	3.34 .64	2.40 .55
Nurs 4360		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	A	28.4 %	8.1 %	24.0 %	8.8 %	41.3 %	0.0 %
	B	59.7 %	66.1 %	61.7 %	66.7 %	53.8 %	60.0 %
	C	11.9 %	24.2 %	14.3 %	22.8 %	5.0 %	40.0 %
	D	0.0 %	1.6 %	0.0 %	1.8 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean S.D.	3.17 .61	2.81 .60	3.10 .61	2.83 .60	3.36 .58	2.60 .55

Courses	Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 4400		(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
	A	20.6 %	9.7 %	20.0 %	8.8 %	22.5 %	20.0 %
	B	46.8 %	29.0 %	46.5 %	28.1 %	47.5 %	40.0 %
	C	31.3 %	50.0 %	31.7 %	50.9 %	30.0 %	40.0 %
	D	1.0 %	8.1 %	1.3 %	8.8 %	0.0 %	0.0 %
	F	0.3 %	3.2 %	0.4 %	3.5 %	0.0 %	0.0 %
	Mean	2.87	2.34	2.84	2.30	2.93	2.80
	S.D.	.76	.89	.77	.89	.73	.84
Nurs 4401		(n=193)	(n=33)	(n=113)	(n=28)	(n=80)	(n=5)
	A	66.3 %	54.5 %	63.7 %	53.6 %	70.0 %	60.0 %
	B	32.1 %	45.5 %	34.5 %	46.4 %	28.7 %	40.0 %
	C	1.6 %	0.0 %	1.8 %	0.0 %	1.3 %	0.0 %
	D	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	F	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
	Mean	3.65	3.55	3.62	3.54	3.69	3.60
	S.D.	.51	.51	.52	.51	.49	.55

In analyzing Table 28, again, the small number of students in the group who failed the NCLEX must be considered. Table 28 shows that in all but one of the required nursing courses the mean course grade was higher for those who passed either SBTPE or NCLEX than for those who failed. In NURS 3101, this was true for the SBTPE group; however, for the NCLEX group the mean course grade (mean = 3.40) was higher for those who failed (n = 5) than for those who passed (mean = 3.33, n = 80).

Repeating a required nursing course did not ensure that a student would pass the SBTPE or NCLEX. As seen in Appendix C, entitled "Distribution of Second Grades in Required Nursing Courses for the Total License Group, SBTPE Group, and NCLEX Group By Pass-Fail Status," the one student who repeated NURS 1000 failed the licensing exam, two (50%) out of four students repeating NURS 2200 failed the exam, five (27.7%) out of eighteen students repeating NURS 2300 failed the exam, three (20%) out of fifteen students repeating NURS 3100 failed the exam, two (40%) out of five students repeating NURS 3101 failed the exam, two (20%) out of ten students repeating NURS 3300 failed the exam, five (41.7%) out of twelve students repeating NURS 4200 failed the exam and seven (63.6%) out of eleven students repeating NURS 4400 failed the exam. In NURS 3301, NURS 4000, and NURS 4320, there was only one repeater in each course and this student passed the licensing exam. Most of the repeaters took the SBTPE.

National League For Nursing (NLN) Achievement Test Scores

National League for Nursing (NLN) Achievement Tests are given at the end of the semester in which the student takes Anatomy and Physiology, Nursing of the Adult-Adapting to Health Stressors II, Parent-Child Nursing, Community Mental Health Nursing, and Family and Community Health Nursing. Raw and percentile scores were collected and a mean was calculated for each test. When reviewing raw score means, it must be remembered that the test may have changed during the four year study period. If an NLN test changed, the total number of test items may have increased or decreased. Consequently, comparisons of the raw scores

and mean raw score data were not as meaningful as the percentile data comparisons made on all students, generic and transfer students, and by licensing examination groups. Also investigated were NLN percentile ranges and student performance on SAT Verbal and SAT Math tests. Tables were made to illustrate how students performed on both the NLN's and SAT's. Student performance on the SBTPE or NCLEX was also investigated by NLN percentile groups. Each NLN test will be discussed separately.

ANATOMY AND PHYSIOLOGY NLN

TABLE 29: ANATOMY AND PHYSIOLOGY NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables	Generic	Transfer	All Students
A & P	(n=206)	(n=74)	(n=280)
Mean	30.6	38.9	32.8
Range	0-79	0-79	0-79
S.D.	13.3	17.3	14.9

Table 29 shows that the mean anatomy and physiology raw score for transfer students is higher than the generic students mean. Both student classification groups had a zero as the lowest score and a 79 as the highest score.

TABLE 30: NLN ACHIEVEMENT TEST RAW SCORES FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
A & P	(n=222)	(n=42)	(n=144)	(n=37)	(n=78)	(n=5)
Mean	33.3	25.2	36.0	26.5	28.2	15.0
Range	0-79	6-61	2-79	6-61	0-79	10-18
S.D.	14.5	12.9	14.0	13.1	14.2	3.3

When reviewing the anatomy and physiology raw score means by license groups, it is evident that the students who passed the licensing exams had a higher mean than the students who failed (Table 30). The mean scores of the NCLEX groups are lower than their SBTPE exam counterparts.

TABLE 31: ANATOMY AND PHYSIOLOGY NLN PERCENTILE RANGES BY SAT
VERBAL AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Anatomy and Physiology NLN ≤ 7th percentile	< 300 300-399 400-499 ≥ 500	(n=205) 3.9% (n=8) 17.1% (n=35) 22.4% (n=46) 5.8% (n=12)	(n=205) 0.0% (n=0) 12.2% (n=25) 29.8% (n=61) 7.3% (n=15)
8-25th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 9.7% (n=20) 17.1% (n=35) 9.3% (n=19)	0.0% (n=0) 7.3% (n=15) 7.1% (n=35) 11.7% (n=24)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 1.0% (n=2) 5.4% (n=11) 5.8% (n=12)	0.0% (n=0) 1.0% (n=2) 2.9% (n=6) 8.3% (n=17)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 0.5% (n=1) 1.0% (n=2) 1.0% (n=2)	0.0% (n=0) 0.0% (n=0) 0.0% (n=0) 2.4% (n=5)
86-99th percentile		no students in this group	no students in this group

From the above Table 31, it can be seen that all of the students with a SAT Verbal score below 300 ranked in the less than or equal to seventh percentile group. It is interesting to note that 101 students (49.3%) ranked in the seventh percentile or less group regardless of their SAT scores. Only five students (2.5%) made above the 50th percentile on the Anatomy and Physiology NLN and no one made above the 85th percentile.

TABLE 32: ANATOMY AND PHYSIOLOGY NLN PERCENTILE RANGES FOR SBTPE AND NCLEX GROUPS BY PASS-FAIL STATUS

Variable	SBTPE GROUP		NCLEX GROUP	
	Pass	Fail	Pass	Fail
Anatomy and Physiology NLN	(n=144)	(n=37)	(n=78)	(n=5)
≤ 7th percentile	36.1%	59.5%	55.1%	100%
8-25th percentile	39.5%	32.4%	35.9%	0.0%
26-50th percentile	8.8%	5.4%	5.1%	0.0%
51-75th percentile	4.2%	2.7%	2.6%	0.0%
76-85th percentile	1.4%	0.0%	1.3%	0.0%
≥ 86th percentile	0.0%	0.0%	0.0%	0.0%

Percentile rankings were divided further when comparing percentile range to SBTPE and NCLEX pass-fail groups. Table 32 shows that all but three students who ranked in 26th percentile or greater on the Anatomy and Physiology NLN passed their respective licensing examination. All students who failed the NCLEX ranked in the 7th percentile or less group. There were many students in the lowest percentile group who did pass their licensing examination.

NURSING CARE PART III NLN

TABLE 33: NURSING CARE PART III NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables	All Students	Generic	Transfer
Nursing Care Part III	(n=353)	(n=255)	(n=98)
Mean	56.7	58.2	63.5
Range	7-93	24-91	7-93
S.D.	12.6	11.7	14.2

Table 33 shows that the mean Nursing Care Part III raw score for transfer students is higher than the mean for generic students. The transfer students had the lowest score as well as the highest score.

TABLE 34: NURSING CARE PART III NLN RAW SCORES FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
Nursing Care Part III	(n=284)	(n=51)	(n=206)	(n=46)	(n=78)	(n=5)
Mean	61.3	48.3	61.0	49.2	62.0	40.2
Range	24-93	7-79	25-91	7-79	24-93	32-48
S.D.	11.5	12.8	11.0	13.1	12.9	6.7

When reviewing the raw score means for the Nursing Care Part III NLN, the group which passed had a higher mean score than the group which failed. In the NCLEX group, the difference in the means between those who passed and those who failed was 19.8, while the difference in the means of the SBTPE group was only 11.8.

TABLE 35: NURSING CARE PART III NLN PERCENTILE RANGES BY SAT VERBAL
AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Nursing Care III NLN		(n=257)	(n=257)
≤ 7th percentile	< 300 300-399 400-499 ≥ 500	1.6% (n=4) 2.3% (n=6) 0.4% (n=1) 0.0% (n=0)	0.0% (n=0) 1.2% (n=3) 2.7% (n=7) 0.4% (n=1)
8-25th percentile	< 300 300-399 400-499 ≥ 500	1.6% (n=4) 8.8% (n=23) 12.5% (n=32) 1.6% (n=4)	0.0% (n=0) 8.2% (n=21) 12.5% (n=32) 3.9% (n=10)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 10.1% (n=26) 21.8% (n=56) 7.8% (n=20)	0.0% (n=0) 7.8% (n=20) 21.0% (n=54) 10.9% (n=28)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 3.5% (n=9) 14.0% (n=36) 9.7% (n=25)	0.0% (n=0) 1.8% (n=5) 14.0% (n=36) 11.3% (n=29)
86-99th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 0.4% (n=1) 0.8% (n=2) 3.1% (n=8)	0.0% (n=0) 0.8% (n=2) 1.2% (n=3) 2.3% (n=6)

From Table 35, it can be seen that all students with a SAT Verbal score less than 300 ranked below the 26th percentile on the Nursing Care Part III NLN test. The higher a student's SAT scores, the higher is his percentile ranking on the Nursing Care Part III. Only 17 students (6.6%) who made 300-399 on either the SAT Verbal or SAT Math tests ranked over the 50th percentile on the Nursing Care Part III NLN.

TABLE 36: NURSING CARE PART III NLN PERCENTILE RANGES FOR SBTPE AND NCLEX GROUPS BY PASS-FAIL STATUS

Variable	SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail
Nursing Care Part III NLN	(n=196)	(n=51)	(n=80)	(n=5)
≤ 7th percentile	1.5%	17.6%	2.5%	40.0%
8-25th percentile	22.4%	35.3%	16.3%	60.0%
26-50th percentile	39.3%	39.2%	35.0%	0.0%
51-75th percentile	26.5%	7.8%	25.0%	0.0%
76-85th percentile	8.2%	0.0%	11.2%	0.0%
≥ 86th percentile	7.1%	0.0%	10.0%	0.0%

Table 36 shows that no students failed either licensing examination if they ranked over the 75th percentile on the Nursing Care Part III NLN. Only four students (5.3%) failed who attained scores above the 50th percentile.

OBSTETRICAL NURSING NLN

TABLE 37: OBSTETRICAL NURSING NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER STATUS

Variables	All Students	Generic	Transfer
Obstetrical Nursing NLN	(n=391)	(n=288)	(n=103)
Mean	62.2	61.2	65.2
Range	10-99	10-98	13-99
S.D.	13.7	13.6	13.5

Table 37 shows that transfer students have higher mean raw scores on the Obstetrical Nursing NLN than generic students. Generic students made the lowest score while transfer students made the highest score.

TABLE 38: OBSTETRICAL NURSING NLN RAW SCORES FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
Obstetrical Nursing NLN	(n=309)	(n=62)	(n=229)	(n=57)	(n=80)	(n=5)
Mean	63.2	54.6	64.3	56.0	59.8	38.2
Range	10-99	13-98	10-99	13-98	17-87	24-56
S.D.	12.9	14.8	12.8	14.3	12.9	11.8

When reviewing the raw score means by license group, it can be seen that the means are higher for the group which passed than for the group which failed. The raw score means for the NCLEX group are lower than their SBTPE counterparts.

TABLE 39: OBSTETRICAL NURSING NLN PERCENTILE RANGES BY SAT VERBAL AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Obstetrical Nursing NLN		(n=290)	(n=290)
≤ 7th percentile	< 300 300-399 400-499 ≥ 500	1.0% (n=3) 5.2% (n=15) 3.4% (n=10) 0.3% (n=1)	0.0% (n=0) 3.1% (n=9) 5.9% (n=17) 1.0% (n=3)
8-25th percentile	< 300 300-399 400-499 ≥ 500	1.4% (n=4) 6.2% (n=18) 10.4% (n=30) 1.4% (n=4)	0.0% (n=0) 5.5% (n=16) 9.3% (n=27) 4.5% (n=13)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.3% (n=1) 9.3% (n=27) 18.6% (n=54) 5.9% (n=17)	0.0% (n=0) 7.3% (n=21) 16.9% (n=49) 10.0% (n=29)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 4.5% (n=13) 14.8% (n=43) 11.7% (n=34)	0.0% (n=0) 3.8% (n=11) 16.9% (n=49) 10.3% (n=30)
86-99th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 0.0% (n=0) 2.8% (n=8) 2.8% (n=8)	0.0% (n=0) 0.3% (n=1) 2.1% (n=6) 3.1% (n=9)

From the above Table 39, it can be seen that for students with SAT scores below 300, only one student (1.4%) attained a score above the 25th percentile on the Obstetrical Nursing NLN. A few students who scored ≥ 500 on each SAT test [five (1.7%) of the SAT Verbal group, and sixteen (5.5%) of the SAT Math group] had scores which fell below the 25th percentile on the Obstetrics NLN. A majority of the students (34.2%) attained scores in the 26-50th percentile range.

TABLE 40: OBSTETRICAL NURSING NLN PERCENTILE RANGES FOR SBTPE AND NCLEX GROUPS BY PASS-FAIL STATUS

Variables	SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail
Obstetrics NLN	(n=286)	(n=57)	(n=80)	(n=5)
≤ 7th percentile	6.1%	21.1%	5.0%	40.0%
8-25th percentile	16.6%	40.3%	11.2%	40.0%
26-50th percentile	34.5%	24.5%	32.5%	20.0%
51-75th percentile	28.4%	12.3%	32.5%	0.0%
76-85th percentile	5.7%	1.8%	12.5%	0.0%
≥ 86th percentile	8.7%	0.0%	6.3%	0.0%

Table 40 shows that no students failed either licensing examination when they attained scores above the 85th percentile. Only one student (1.8%) failed with a score in the 76-85th percentile range. In the NCLEX group, all students who failed the NCLEX scored below the 50th percentile. The percentage of those failing licensing exams decreases as the percentiles increase.

NURSING OF CHILDREN NLN

TABLE 41: NURSING OF CHILDREN NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables	Generic	Transfer	All Students
Nursing of Children NLN	(n=288)	(n=104)	(n=392)
Mean	73.7	77.8	74.8
Range	5-99	24-99	5-99
S.D.	12.3	12.5	12.5

Table 41 shows that transfer students have higher mean scores than generic students on the Nursing of Children NLN. The generic students had the lowest score and the highest score (99) was found in both groups.

TABLE 42: NURSING OF CHILDREN NLN FOR TOTAL LICENSE EXAM GROUP,
SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
Nursing of Children NLN	(n=310)	(n=62)	(n=230)	(n=57)	(n=80)	(n=5)
Mean	75.6	67.4	76.1	67.9	74.0	61.2
Range	5-99	24-96	5-99	24-96	53-99	51-77
S.D.	11.9	12.3	12.5	12.3	9.7	12.3

When reviewing the Nursing of Children raw score means by license group, the means are higher for the pass groups than for the fail groups. Once again, the mean scores are higher for the SBTPE groups than for their NCLEX counterparts.

TABLE 43: NURSING OF CHILDREN NLN PERCENTILE RANGES BY SAT VERBAL AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Nursing of Children NLN		(n=290)	(n=290)
≤ 7th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 3.1% (n=9) 1.0% (n=3) 0.0% (n=0)	0.0% (n=0) 0.7% (n=2) 3.4% (n=10) 0.0% (n=0)
8-25th percentile	< 300 300-399 400-499 > 500	1.4% (n=4) 4.5% (n=13) 11.4% (n=33) 1.0% (n=3)	0.0% (n=0) 5.9% (n=17) 9.0% (n=26) 3.5% (n=10)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.7% (n=2) 9.3% (n=27) 13.5% (n=39) 5.5% (n=16)	0.0% (n=0) 5.9% (n=17) 15.2% (n=44) 7.9% (n=23)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.7% (n=2) 7.6% (n=22) 17.2% (n=50) 9.3% (n=27)	0.0% (n=0) 7.2% (n=21) 15.8% (n=46) 11.7% (n=34)
86-99th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 0.7% (n=2) 6.9% (n=20) 6.2% (n=18)	0.0% (n=0) 0.3% (n=1) 7.6% (n=22) 5.9% (n=17)

From the above Table 43, it can be seen that the majority of students (34.8%) attained scores in the 51st-85th percentile range. Once again it can be seen that as SAT scores increase, the student achieves a higher percentile group ranking.

TABLE 44: NURSING OF CHILDREN NLN PERCENTILE RANGES FOR SBTPE AND NCLEX GROUPS BY PASS-FAIL STATUS

	SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail
Children NLN	(n=230)	(n=57)	(n=80)	(n=5)
≤ 7th percentile	2.2%	12.3%	2.5%	20.0%
8-25th percentile	16.5%	29.8%	7.5%	0.0%
26-50th percentile	26.0%	38.6%	25.0%	60.0%
51-75th percentile	28.3%	15.8%	37.5%	20.0%
76-85th percentile	9.6%	0.0%	13.75%	0.0%
≥ 86th percentile	17.4%	3.5%	13.75%	0.0%

Table 44 shows that two students (3.5%) failed the SBTPE exam when they had made greater than the 85th percentile on the Nursing of Children NLN. No one who attained a score over the 75th percentile failed the NCLEX.

PSYCHIATRIC NURSING NLN

TABLE 45: PSYCHIATRIC NURSING NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables	All Students	Generic	Transfer
Psychiatric Nursing NLN	(n=390)	(n=286)	(n=104)
Mean	68.6	68.0	70.2
Range	14-99	14-99	31-99
S.D.	15.1	15.6	13.8

Table 45 shows that transfer students had higher mean raw scores on the Psychiatric Nursing NLN than generic students. The generic students had the lowest score and the highest score (99) was found in both groups.

TABLE 46: PSYCHIATRIC NURSING NLN FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
Psychiatric Nursing NLN	(n=308)	(n=62)	(n=228)	(n=57)	(n=80)	(n=5)
Mean	69.6	61.7	73.1	63.2	59.5	44.2
Range	18-99	14-96	18-99	14-96	32-78	30-53
S.D.	15.0	14.8	15.2	14.3	8.7	9.1

When reviewing the Psychiatric Nursing NLN raw score means by license groups, the means are higher for the groups which passed than for the groups which failed. The means for the SBTPE groups are also higher than their NCLEX counterparts.

TABLE 47: PSYCHIATRIC NURSING NLN PERCENTILE RANGES BY SAT VERBAL AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Psychiatric Nursing NLN		(n=288)	(n=288)
≤ 7th percentile	< 300 300-399 400-499 ≥ 500	0.7% (n=2) 1.0% (n=3) 0.7% (n=2) 0.0% (n=0)	0.0% (n=0) 0.3% (n=1) 2.1% (n=6) 0.0% (n=0)
8-25th percentile	< 300 300-399 400-499 ≥ 500	0.7% (n=2) 7.0% (n=20) 6.6% (n=19) 0.3% (n=1)	0.0% (n=0) 4.5% (n=13) 7.0% (n=20) 3.1% (n=9)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.3% (n=1) 8.9% (n=25) 17.0% (n=49) 3.1% (n=9)	0.0% (n=0) 6.6% (n=19) 14.9% (n=43) 7.6% (n=22)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.7% (n=2) 7.6% (n=22) 20.5% (n=59) 9.7% (n=28)	0.0% (n=0) 7.0% (n=20) 20.8% (n=60) 10.8% (n=31)
86-99th percentile	< 300 300-399 400-499 ≥ 500	0.3% (n=1) 0.7% (n=2) 5.9% (n=17) 8.3% (n=24)	0.0% (n=0) 1.7% (n=5) 6.3% (n=18) 7.3% (n=21)

From the Table above 47, it can be seen that students with SAT Verbal scores below 300 ranked in each percentile group. The majority of students (38.5%) attained scores in the 51st-85th percentile range. As SAT scores increased, the percentile rankings of the students increased.

TABLE 48: PSYCHIATRIC NURSING NLN PERCENTILE RANGES FOR SBTPE AND NCLEX GROUPS BY PASS-FAIL STATUS

Variables	SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail
Psychiatric Nursing NLN	(n=228)	(n=57)	(n=80)	(n=5)
≤ 7th percentile	1.3%	5.3%	1.2%	20.0%
8-25th percentile	11.0%	29.8%	10.0%	40.0%
26-50th percentile	27.6%	40.4%	20.0%	40.0%
51-75th percentile	27.6%	17.5%	33.8%	0.0%
76-85th percentile	13.2%	7.0%	13.8%	0.0%
≥ 86th percentile	19.3%	0.0%	21.2%	0.0%

Table 48 shows that no student who scored above the 85th percentile on the Psychiatric Nursing NLN failed the licensing examination. All students who failed the NCLEX scored below the 50th percentile on their Psychiatric Nursing NLN.

COMMUNITY NURSING NLN

TABLE 49: COMMUNITY NURSING NLN RAW SCORES FOR ALL STUDENTS AND BY GENERIC AND TRANSFER CLASSIFICATION

Variables	All Students	Generic	Transfer
Community Nursing NLN	(n=328)	(n=245)	(n=83)
Mean	72.5	71.4	75.8
Range	4-99	4-99	14-99
S.D.	18.3	18.4	17.5

Table 49 shows that transfer students had higher mean raw scores on the Community NLN than the generic students. Once again, the lowest scores were in the generic groups. Both groups had students with the highest scores.

TABLE 50: COMMUNITY NURSING NLN RAW SCORE FOR TOTAL LICENSE EXAM GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL STATUS

Variables	Total License Exam Group		SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail	Pass	Fail
Community Nursing NLN	(n=264)	(n=48)	(n=185)	(n=43)	(n=79)	(n=5)
Mean	73.1%	65.0%	79.3%	68.1%	57.3%	38.4%
Range	4-99	6-99	14-99	8-99	4-94	6-76
S.D.	17.4	22.0	12.1	19.6	17.7	25.7

When reviewing the Community Nursing NLN raw score means, the mean scores were higher for those who passed than for those who failed. The means were also higher for the SBTPE groups than the means for the NCLEX groups.

TABLE 51: COMMUNITY NURSING NLN RANGES BY SAT VERBAL AND SAT MATH SCORE RANGES

Variable	SAT Score Range	SAT Verbal Group	SAT Math Group
Community Nursing NLN		(n=248)	(n=248)
≤ 7th percentile	< 300 300-399 400-499 ≥ 500	0.8% (n=2) 2.4% (n=6) 2.8% (n=7) 0.0% (n=0)	0.0% (n=0) 2.0% (n=20) 3.6% (n=9) 0.4% (n=1)
8-25th percentile	< 300 300-399 400-499 ≥ 500	1.6% (n=4) 8.9% (n=22) 6.9% (n=17) 1.6% (n=4)	0.0% (n=0) 7.3% (n=18) 7.7% (n=19) 4.0% (n=10)
26-50th percentile	< 300 300-399 400-499 ≥ 500	0.4% (n=1) 7.3% (n=18) 17.3% (n=43) 4.8% (n=12)	0.0% (n=0) 5.7% (n=14) 16.9% (n=42) 7.3% (n=18)
51-85th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 5.7% (n=14) 21.0% (n=52) 12.1% (n=30)	0.0% (n=0) 4.4% (n=11) 19.4% (n=48) 14.9% (n=37)
86-99th percentile	< 300 300-399 400-499 ≥ 500	0.0% (n=0) 0.4% (n=1) 2.0% (n=5) 4.0% (n=10)	0.0% (n=0) 0.4% (n=1) 3.6% (n=9) 2.4% (n=6)

From the above Table 51, it can be seen that the students with SAT Verbal scores below 300 scored in the 50th percentile or less on their Community Nursing NLN. A majority of the students (38.7%) scored in the 51st-85th percentile range. As SAT scores increased, the percentile ranking of the students increased. On this NLN, the higher SAT students peaked at the 51st-85th percentile level.

TABLE 52: COMMUNITY NURSING NLN PERCENTILE RANGES FOR SBTPE
AND NCLEX GROUPS BY PASS-FAIL STATUS

Variable	SBTPE Group		NCLEX Group	
	Pass	Fail	Pass	Fail
Community Nursing NLN	(n=228)	(n=57)	(n=79)	(n=5)
≤ 7th percentile	1.3%	5.3%	3.8%	40.0%
8-25th percentile	11.0%	29.8%	10.1%	20.0%
26-50th percentile	27.6%	40.4%	21.5%	20.0%
51-75th percentile	27.6%	17.5%	39.2%	0.0%
76-85th percentile	13.2%	7.0%	8.9%	20.0%
≥ 86th percentile	19.3%	0.0%	16.5%	0.0%

Table 52 shows that no student who scored above the 85th percentile on the Community Nursing NLN failed the licensing examination. Of the students who scored in the 76-85th percentile range, most passed their licensing examinations.

Correlations

Pearson product-moment correlation coefficients were calculated for selected pairs of variables. The correlations which showed the greatest strength are reported in this section. Few strong correlations were found in this study. As expected, all grade point averages and composite science grade averages were strongly related as were SAT Verbal, Math and total scores. The correlation between SAT scores and SBTPE scores and NCLEX scores are shown in Table 53. It should be noted that SBTPE correlations are reported by the range of correlations of the five SBTPE subtests.

TABLE 53: CORRELATION BETWEEN SAT SCORES AND PERFORMANCE ON SBTPE AND NCLEX FOR ALL STUDENTS

SAT	SBTPE	NCLEX
Verbal	.31 - .43*	.51*
Math	.21 - .30*	.36*
Total	.35 - .40*	.52*

*p < .01

As Table 53 shows, SAT scores are more strongly correlated with the NCLEX than with the SBTPE. The strongest correlation was observed between SAT total scores and NCLEX scores, with SAT Verbal scores and NCLEX scores having a similar correlation. These correlations indicate a moderate relationship between the variables. SAT Math scores had a weaker relationship to both the SBTPE and NCLEX than SAT Verbal and SAT Total.

TABLE 54: CORRELATION BETWEEN PERFORMANCE ON NLN ACHIEVEMENT TESTS AND NCLEX FOR THE CLASS OF 1982

NLN TESTS	NCLEX
Anatomy and Physiology	.56*
Nursing Care Part III	.74*
Obstetrical Nursing	.67*
Nursing of Children	.55*
Psychiatric Nursing	.57*
Community Nursing	.42*

*p < .01

As Table 54 indicates, all the NLN Achievement Test scores had fair to moderate relationships with the NCLEX. The strongest correlation existed between the Nursing Care Part III NLN and the NCLEX while the weakest correlation existed between the Community Nursing NLN and the NCLEX. Knowledge of Community Nursing is not tested on the NCLEX, therefore, it is not surprising that the Community Nursing NLN has the weakest correlation with NCLEX. Correlations were not computed for the SBTPE group due to the fact that the NLN's changed over the years, making raw score comparisons difficult.

TABLE 55: CORRELATION BETWEEN SELECTED NURSING COURSE AND PERFORMANCE ON SBTPE AND NCLEX

Course	SBTPE	NCLEX
Nurs 2200	.30 - .42*	.47*
Nurs 2300	.32 - .48*	.41*
Nurs 3100	.20 - .44*	.41*
Nurs 3300	.36 - .41*	.44*
Nurs 4000	.24 - .32*	.45*
Nurs 4400	.30 - .44*	.41*

*p < .01

Table 55 shows that three nursing courses (NURS 2300, NURS 3100, NURS 4400) had essentially the same correlation with the SBTPE as with the NCLEX. The other three nursing courses (NURS 2200, NURS 3300, NURS 4000) had a higher correlation with the NCLEX than with the SBTPE. NURS 2300 had the highest correlation with the SBTPE whereas NURS 2200 was shown to have the highest correlation with NCLEX. All of these nursing courses represent only a fair degree of relationship to either licensing examination. The clinical nursing course grades had little or no relationship to either the SBTPE or the NCLEX (all less than .20)

TABLE 56: CORRELATION BETWEEN SELECTED NURSING GRADE AVERAGES
PERFORMANCE ON SBTPE AND NCLEX

Grade Average	SBTPE	NCLEX
NURSGA ₁	.46 - .56*	.54*
NURSGA ₂	unable to compute	.52*
NURSGA ₃	unable to compute	.37*
NURSGA ₄	unable to compute	.53*

*p < .01

NURSGA₁ represents all theory courses that have a clinical corequisite which was also computed in the average. There was essentially no difference in the correlation between NURSGA₁ and the SBTPE or NCLEX. The NCLEX had a stronger correlation with NURSGA₁ than with any of the other nursing grade averages, although NURSGA₂ and NURSGA₄ were similar. NURSGA₃ which represents only clinical courses, had the weakest correlation with the NCLEX of any of the other NURSGA's.

APPENDICES

SCHOOL OF NURSING
EAST CAROLINA UNIVERSITY
GRADUATE DATA SHEETID# _____ (01) NAME: _____ CLASS: _____
(1-11) Last First Middle Maiden (38-39) (40)* (41)
(12-21) (22-30) (31-37)SEX: _____ ENTRANCE AGE: _____ COMPLETION AGE: _____
(42)** (43-44) (45-46)Number of semesters to complete program: _____ Reason: _____
(47-48) (49)+

SAT Scores: Verbal _____ (50-52) Math _____ (53-55) Total: _____ (56-59)

Cumulative GPA: 1st Semester _____ (60-63) 6th Semester _____ (72-75)
2nd Semester _____ (64-67) 8th Semester _____ (76-79)
4th Semester _____ (68-71)ID# _____ (02)
(1-11)NLN Achievement Test Scores

	<u>Raw Score</u>	<u>Percentile</u>
Anatomy & Physiology	_____ (12-14)	_____ (15-16)
Nursing Care Part III	_____ (17-19)	_____ (20-21)
Obstetrics	_____ (22-24)	_____ (25-26)
Children	_____ (27-29)	_____ (30-31)
Psychiatric	_____ (32-34)	_____ (35-36)
Community	_____ (37-39)	_____ (40-41)
Medical-Surgical	_____ (42-44)	_____ (45-46)
Parent-Child	_____ (47-49)	_____ (50-51)
	_____ (52-54)	_____ (55-56)
	_____ (57-59)	_____ (60-61)
	_____ (62-64)	_____ (65-66)

*40 - 1 = generic; 2 = transfer

#41 - # degrees

**42 - 1 = male 2 = female

+49 - 1 - expected time frame

2 - medical

3 - academic - Problems in nursing

- Problems with sciences and

69

4 - finances

5 - pregnancy

6 - family problems

7 - unknown

8 - declared

major late
or changed

ID# _____ (03)
(1-11)

<u>Cognate Courses</u>	<u>Grade</u>	<u>Second Grade (if repeated)</u>
CHEM (General)	_____ (12)	_____ (31)
CHEM LAB (General)	_____ (13)	_____ (32)
CHEM (Bio)	_____ (14)	_____ (33)
CHEM LAB (Bio)	_____ (15)	_____ (34)
BIOL I (A & P)	_____ (16)	_____ (35)
BIOL LAB I (A & P)	_____ (17)	_____ (36)
BIOL II (A & P)	_____ (18)	_____ (37)
BIOL LAB II (A & P)	_____ (19)	_____ (38)
MATH LAB	_____ (20)	_____ (39)
MATH	_____ (21)	_____ (40)
BIOL (Micro)	_____ (22)	_____ (41)
ENGL I	_____ (23)	
ENGL II	_____ (24)	
SOCI (Intro)	_____ (25)	
HOME (Family relations)	_____ (26)	
PSYC (General)	_____ (27)	
PSYC (Developmental)	_____ (28)	
PSYC (Adjustment)	_____ (29)	
SPCH	_____ (30)	

State Board Scores

Medical _____ (42-44) Surgical _____ (45-47)
 Obstetrics _____ (48-50) Children _____ (51-53)
 Psychiatric _____ (54-56)

ID# _____ (04)
(1-11)

<u>Nursing Courses</u>	<u>Grade</u>	<u>Warning Letter Sent*</u>	<u>Second Grade (if repeated)</u>
NURS 1000 (Nursing Perspectives)	____(12)		____(45)
NURS 2106 (Nutrition)	____(13)		____(46)
NURS 2200 (Fundamentals)	____(14)	____(30)	____(47)
2201	____(15)	____(31)	____(48)
NURS 2300 (Basic Med-Surg)	____(16)	____(32)	____(49)
2301	____(17)	____(33)	____(50)
NURS 3100 (Advanced Med-Surg)	____(18)	____(34)	____(51)
3101	____(19)	____(35)	____(52)
NURS 3300 (Parent-Child)	____(20)	____(36)	____(53)
3301	____(21)	____(37)	____(54)
NURS 4000 (Community Health)	____(22)	____(38)	____(55)
4001	____(23)	____(39)	____(56)
NURS 4200 (Leadership)	____(24)	____(40)	____(57)
4201	____(25)	____(41)	____(58)
NURS 4320 (Issues)	____(26)		____(59)
NURS 4360 (Research)	____(27)		____(60)
NURS 4400 (Mental Health)	____(28)	____(42)	____(61)
4401	____(29)	____(43)	____(62)

Total # Warning Letters _____(44)

<u>Nursing Electives</u>	<u>Grade</u>
NURS 3240 (Physical Assessment:	____(63)
NURS 3250 (Geriatrics)	____(64)
	____(65)
	____(66)
	____(67)
	____(68)

Externship _____*(69) If so, which hospital? _____+(70)

What area? _____++(71)

Member of Sigma Theta Tau _____*(72)

*1 = yes, 2 = no
+1 = PCMH, 2 = other
++1 = medical; 2 = surgical; 3 = obstetrics; 4 = pediatrics; 5 = NICU; 6 = intensive units;
7 = other

ID# _____ (05)

NCLEX
(12-15)Employment During Course Enrollment:

<u>Course</u>	<u>Yes/No*</u>	<u># Wks</u>	<u>Where +</u>	<u># Hours ++/Wk</u>
NURS 2200	(36)	(37-38)	(39)	(40)
NURS 2300	(41)	(42-43)	(44)	(45)
NURS 3100	(46)	(47-48)	(49)	(50)
NURS 3300	(51)	(52-53)	(54)	(55)
NURS 4000	(56)	(57-58)	(59)	(60)
NURS 4400	(61)	(62-63)	(64)	(65)

Financial Aid During Course Enrollment:

<u>Course</u>	<u>Yes/No</u>	<u>Type**</u>	<u>Loans:</u>
NURS 2200	(66)	(67)	Received: (78)* Type: (79)**
NURS 2300	(68)	(69)	
NURS 3100	(70)	(71)	
NURS 3300	(72)	(73)	
NURS 4000	(74)	(75)	
NURS 4400	(76)	(77)	

*36 = 1 = yes; 2 = no

+39 - 1 = hospital, 2 = nursing home, 3 = other health related exp., 4 = other

++40 - 1 = 10 hrs/wk, 2 = 10-20 hrs., 3 = 20-30 hrs., 4 = 30-40 hrs., 5 = 40 hrs.

**67 - 1 = BEOG, 2 = VA, 3 = USPHS, 4 = NC Dept. HR, 5 = NSL, 6 = NDSL, 7 = other

APPENDIX B: DISTRIBUTION OF SECOND GRADES IN SELECTED REQUIRED AND COGNATE COURSES
FOR THE TOTAL LICENSE GROUP, SBTPE GROUP AND NCLEX GROUP BY PASS-FAIL
STATUS

Courses	2nd Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
General Chemistry Grade 2		(n=10)	(n=1)	(n=4)	(n=1)	(n=6)	(n=0)
	A	20.0%	100%	0.0%	100%	33.6%	
	B	20.0%	0.0%	25.0%	0.0%	16.7%	
	C	40.0%	0.0%	50.0%	0.0%	33.3%	
	D	20.0%	0.0%	25.0%	0.0%	16.7%	
	F	0.0%	0.0%	0.0%	0.0%	0.0%	
	Mean	2.40	4.00	2.00	4.00	2.67	
	S.D.	1.1	0.0	.82	0.0	1.2	
Biochemistry Grade 2		(n=7)	(n=3)	(n=6)	(n=3)	(n=1)	(n=0)
	A	0.0%	0.0%	0.0%	0.0%	0.0%	
	B	42.9%	66.7%	50.0%	66.7%	0.0%	
	C	42.9%	0.0%	33.3%	0.0%	100%	
	D	14.3%	33.3%	16.7%	33.3%	0.0%	
	F	0.0%	0.0%	0.0%	0.0%	0.0%	
	Mean	2.29	2.33	2.33	2.33	2.00	
	S.D.	.76	1.2	.82	1.2	0.0	
Anatomy and Physiology Grade 2		(n=20)	(n=9)	(n=12)	(n=8)	(n=8)	(n=1)
	A	5.0%	11.1%	8.3%	12.5%	0.0%	0.0%
	B	40.0%	33.3%	25.0%	37.5%	62.5%	0.0%
	C	50.0%	55.6%	58.3%	50.0%	37.5%	100%
	D	5.0%	0.0%	8.3%	0.0%	0.0%	0.0%
	F	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Mean	2.45	2.56	2.33	2.63	2.63	2.00
	S.D.	.69	.73	.78	.74	.52	0.0
Anatomy and Physiology Lab Grade 2		(n=2)	(n=1)	(n=2)	(n=1)	(n=0)	(n=0)
	A	50.0%	100%	50.0%	100%		
	B	50.0%	0.0%	50.0%	0.0%		
	C	0.0%	0.0%	0.0%	0.0%		
	D	0.0%	0.0%	0.0%	0.0%		
	F	0.0%	0.0%	0.0%	0.0%		
	Mean	3.50	4.00	3.50	4.00		
	S.D.	.71	0.0	.71	0.0		
Math Grade 2		(n=2)	(n=2)	(n=1)	(n=2)	(n=1)	(n=0)
	A	0.0%	0.0%	0.0%	0.0%	0.0%	
	B	100%	100%	100%	100%	100%	
	C	0.0%	0.0%	0.0%	0.0%	0.0%	
	D	0.0%	0.0%	0.0%	0.0%	0.0%	
	F	0.0%	0.0%	0.0%	0.0%	0.0%	
	Mean	3.00	3.00	3.00	3.00	3.00	
	S.D.	0.0	0.0	0.0	0.0	0.0	

Courses	2nd Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Microbiology Grade 2		(n=1)	(n=0)	(n=1)	(n=0)	(n=0)	(n=0)
	A	0.0%		0.0%			
	B	0.0%		0.0%			
	C	100%		100%			
	D	0.0%		0.0%			
	F	0.0%		0.0%			
	Mean	2.00		2.00			
	S.D.	0.0		0.0			

APPENDIX C: DISTRIBUTION OF SECOND GRADES IN REQUIRED NURSING COURSES FOR THE TOTAL LICENSE GROUP, SBTPE GROUP, AND NCLEX GROUP BY PASS-FAIL STATUS

Courses	2nd Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 1000 Grade 2		(n=0)	(n=1)	(n=0)	(n=1)	(n=0)	(n=0)
	A		0.0%		0.0%		
	B		100%		100%		
	C		0.0%		0.0%		
	D		0.0%		0.0%		
	F		0.0%		0.0%		
	Mean		3.00		3.00		
Nurs 2200 Grade 2	S.D.		0.0		0.0		
		(n=2)	(n=2)	(n=1)	(n=1)	(n=1)	(n=1)
	A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	B	100%	50.0%	100%	100%	100%	0.0%
	C	0.0%	50.0%	0.0%	0.0%	0.0%	100%
	D	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	F	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nurs 2300 Grade 2	Mean	3.00	2.50	3.00	3.00	3.00	2.00
	S.D.	0.0	.71	0.0	0.0	0.0	0.0
		(n=13)	(n=5)	(n=13)	(n=5)	(n=0)	(n=0)
	A	7.7%	0.0%	7.7%	0.0%		
	B	53.8%	80.0%	53.8%	80.0%		
	C	38.5%	20.0%	38.5%	20.0%		
	D	0.0%	0.0%	0.0%	0.0%		
Nurs 3100 Grade	F	0.0%	0.0%	0.0%	0.0%		
	Mean	2.69	2.80	2.69	2.80		
	S.D.	.63	.45	.63	.45		
		(n=12)	(n=3)	(n=11)	(n=3)	(n=1)	(n=0)
	A	16.7%	0.0%	18.2%	0.0%	0.0%	
	B	41.7%	33.3%	36.4%	33.3%	100%	
	C	41.7%	66.7%	45.0%	66.7%	0.0%	
Nurs 3101 Grade 2	D	0.0%	0.0%	0.0%	0.0%	0.0%	
	F	0.0%	0.0%	0.0%	0.0%	0.0%	
	Mean	2.75	2.33	2.73	2.33	3.00	
	S.D.	.75	.58	.79	.58	0.0	
		(n=3)	(n=2)	(n=3)	(n=2)	(n=0)	(n=0)
	A	0.0%	0.0%	0.0%	0.0%		
	B	33.3%	100%	33.3%	100%		
	C	66.7%	0.0%	66.7%	0.0%		
	D	0.0%	0.0%	0.0%	0.0%		
	F	0.0%	0.0%	0.0%	0.0%		
	Mean	2.33	3.00	2.33	3.00		
	S.D.	.58	0.0	.58	0.0		

Courses	2nd Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 3300 Grade 2		(n=8)	(n=2)	(n=8)	(n=2)	(n=0)	(n=0)
	A	0.0%	0.0%	0.0%	0.0%		
	B	50.0%	50.0%	50.0%	50.0%		
	C	50.0%	50.0%	50.0%	50.0%		
	D	0.0%	0.0%	0.0%	0.0%		
	F	0.0%	0.0%	0.0%	0.0%		
	Mean	2.50	2.50	2.50	2.50		
	S.D.	.54	.71	.54	.71		
Nurs 3301 Grade 2		(n=1)	(n=0)	(n=1)	(n=0)	(n=0)	(n=0)
	A	0.0%		0.0%			
	B	100%		100%			
	C	0.0%		0.0%			
	D	0.0%		0.0%			
	F	0.0%		0.0%			
	Mean	3.00		3.00			
	S.D.	0.0		0.0			
Nurs 4000 Grade 2		(n=1)	(n=0)	(n=1)	(n=0)	(n=0)	(n=0)
	A	0.0%		0.0%			
	B	0.0%		0.0%			
	C	100%		100%			
	D	0.0%		0.0%			
	F	0.0%		0.0%			
	Mean	2.00		2.00			
	S.D.	0.0		0.0			
Nurs 4200 Grade 2		(n=7)	(n=5)	(n=5)	(n=5)	(n=1)	(n=0)
	A	28.6%	0.0%	33.3%	0.0%	0.0%	
	B	14.3%	20.0%	16.7%	20.0%	0.0%	
	C	57.1%	80.0%	50.0%	80.0%	100%	
	D	0.0%	0.0%	0.0%	0.0%	0.0%	
	F	0.0%	0.0%	0.0%	0.0%	0.0%	
	Mean	2.71	2.20	2.83	2.20	2.00	
	S.D.	.95	.45	.98	.45	0.0	
Nurs 4320 Grade 2		(n=1)	(n=0)	(n=1)	(n=0)	(n=0)	(n=0)
	A	0.0%		0.0%			
	B	0.0%		0.0%			
	C	100%		100%			
	D	0.0%		0.0%			
	F	0.0%		0.0%			
	Mean	2.00		2.00			
	S.D.	0.0		0.0			

Courses	2nd Grade Received	Total License Exam Group		SBTPE Group		NCLEX Group	
		Pass	Fail	Pass	Fail	Pass	Fail
Nurs 4400 Grade 2		(n=4)	(n=7)	(n=4)	(n=7)	(n=0)	(n=0)
	A	0.0%	14.3%	0.0%	14.3%		
	B	25.0%	42.9%	25.0%	42.9%		
	C	75.0%	42.9%	75.0%	42.9%		
	D	0.0%	0.0%	0.0%	0.0%		
	F	0.0%	0.0%	0.0%	0.0%		
	Mean	2.25	2.71	2.25	2.71		
	S.D.	.50	.76	.50	.76		